

## Čar srednjeveških podkev. Razprava o njihovi kronologiji, klasifikaciji in izvoru

### The charm of medieval horseshoes A discussion of their chronology, classification and origin

Andrej PLETERSKI

#### Izvleček

V izjemno dolgotrajni diskusiji o izvoru, času pojava in razvoju podkev avtor s pomočjo novih najdb sestavi trenutno najverjetnejšo razlago. Podkve so se razvile v 5. st. iz kopitnih natikačev ter se razširile najprej po rimskem in bizantinskem cesarstvu, nato pa še naprej. Kot oblika prehodnega trajanja se konec 10. st. pojavijo podkve z valovitim robom. Novosti, ki sta v uporabi še danes, so najkasneje sredi 11. st. ozobci in najkasneje konec 12. st. žlebovi za podkovske žeblje.

**Ključne besede:** kopitni natikači, podkve, srednji vek, Evropa, kronologija, tipologija, metodologija

#### Abstract

Discussions about the origin, period of appearance, and the development of horseshoes have a very long history. This contribution based on recent finds offers an explanation that is currently the most likely. It argues that horseshoes developed in the 5<sup>th</sup> century from hipposandals and spread first across the Roman and Byzantine Empires, and then beyond. As a form of limited duration, horseshoes with a wavy edge appeared in the 10<sup>th</sup> century, while features still in use today are caulkins, which appeared in the mid-11<sup>th</sup> century at the latest, and fullering, documented at least from the end of the 12<sup>th</sup> century onwards.

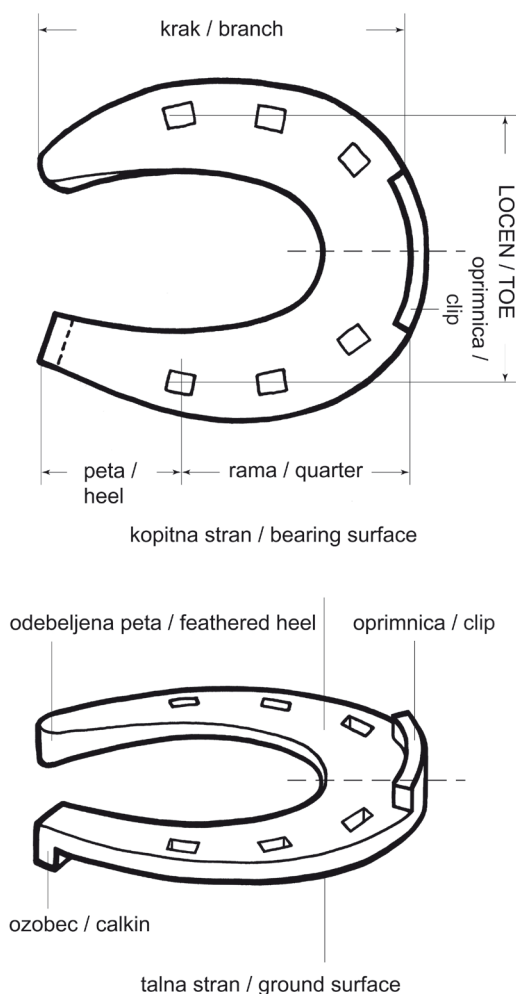
**Keywords:** hipposandals, horseshoes, Middle Ages, Europe, chronology, typology, methodology

Arheološka topografija se je na Slovenskem začela v 19. st. z Jernejem Pečnikom, ki ga po številu novoodkritih najdišč najverjetneje ne bo prekosil nihče. Lidarska tehnologija 21. st. seveda prinaša povsem nove možnosti razpoznavanja arheoloških sledov, vendar bo ob tem vedno imelo pomen nadjeno arheološko oko terenskega topografa. To je razlika med tehnično popolnostjo 3-R tiskalnika in čutom mojstrskega rokodelca, ki izdelku šele vdihne dušo. Tako nenadkriljivo oko ima Slavko Ciglenečki. Zato ga je mnogokrat doletela inštitutska

naloga, da preverja številne nove najdbe in najdišča na terenu. Med njimi je bil tudi Vražji vrtec nad Babnim Poljem pri Prezidu. Iz njegovega obiska in izkopavanja domoznanca Bogdana Mlakarja je nastala kratka objava (Ciglenečki 1986). Med najdbami je bila tudi podkev, ki me je še posebej zanimala, a je njeno risbo neroden prehod na digitalno tehnologijo tiska popačil do nespoznavnosti. Original risbe je poniknil, in ko mi ga je Slavko pred kratkim prinesel, je bil to razlog za veselje, ki ga ob njegovem jubileju želim deliti z njim.

## SPLOŠNO

Podkev (kot pribito obuvalo) in število podkovskih žabljev (*sl. 1*) sta za sodobnega jezdeca nujno zlo, ki po eni strani ščiti kopito živali, po drugi strani pa ji tudi škoduje in se temu dodatku kopita zato kaže izogniti, kadar je le mogoče. Potreba po podkvah je odvisna od teže živali, njene delovne obremenitve in trdote poti. Težka žival in zelo kamnita tla zahtevajo podkve, težka vleka pa še dodatno ozobce (prim. Clark 2004, 75–78; Mechelhoff 2013). Predvidevamo lahko, da so podkve razvili tam in takrat, ko se je pojavila potreba po njih. Torej tam, kjer so konje in druge živali (osle, mezge, mule, vole) mnogo uporabljali kot delovno silo na trdih tleh.



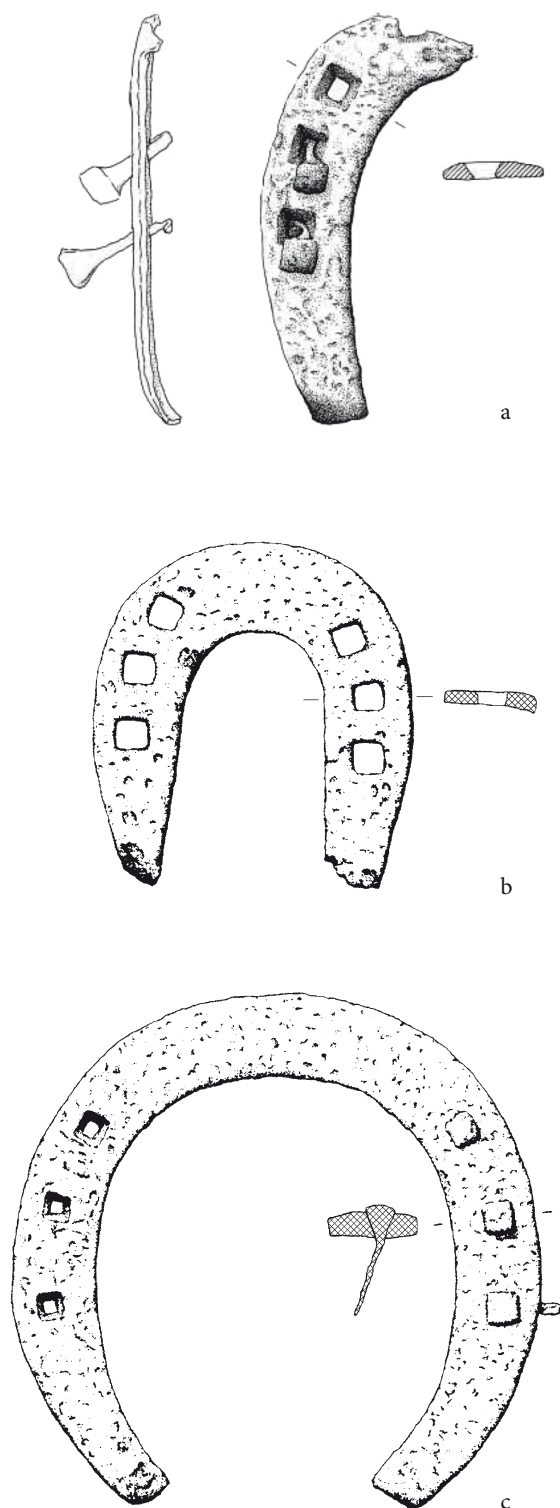
*Sl. 1:* Podkev in njeni sestavni deli.  
*Fig. 1:* A horseshoe and its parts.  
 (po / after Štular 2009, sl. / Fig. 5.17)

Podkev in podkovski žablji so potrošni material. Konja je treba znova podkovati po 4–6 tednih in če stara podkev ni preveč izrabljena, jo je mogoče ponovno uporabiti. Vendar se je to le izjemoma zgodilo več kot enkrat, kar kaže nakupno razmerje med številom podkev in žabljev, ki se giblje okoli 1 : 10. Pri tem ni nujno, da so pri podkovanju uporabili toliko žabljev, kot je v podkvi lukenj (Steuer 2000, 194; Clark 2004, 83). To pomeni, da so posamične podkve predmeti zelo kratkega časa uporabe. Njihova oblika je strogo funkcionalna in se zato ni mnogo spreminjala.

Po tem, ko je že veljalo, da se podkve pojavljajo od poznega latenskega obdobja, je kritična revizija najdb pokazala, da gre za nezanesljive najdbene skupke ali drugotne stratigrafske odnose. Pisni viri podkve omenjajo od 9. st. in do nedavnega so se s tem ujemale tudi nedvoumne arheološke najdbe. Kje so izumili podkve in kako so se razširile po Evropi, je ostalo nepojasnjeno. Prav tako ni znano, kako so ščitili kopita živali od 4. st., ko so prenehali uporabljati železne natikače (*hipposandale*), do 9. st., ko so podkve že nedvomno izpričane (prim. Steuer 2000 z zgodovino raziskav; tudi Lingens 2007, 8–17; za Britanijo Clark 2004, 78–81). Pozna datacija podkev pa ni prepričala vseh. Po soočenju vseh dokazov v že več kot stoletni diskusiji ima Mauricio G. Álvarez Rico vprašanje za nerazrešeno. Sam še vedno dopušča možnost starega izvora podkev in priznava, da bodo odločilen odgovor dale zanesljive arheološke najdbe. Pri podkvah ne vidi oblikovnega razvoja, njihov izvor iz kopitnih natikačev se mu ne zdi mogoč brez vmesnih stopenj, ki pa še niso izpričane (Álvarez Rico 2003, 166–170). Kaj torej prinašajo nove najdbe in morda še pomembnejše, kako na vidljivost vpliva naša pripravljenost videti?

## Kronologija podkev in kognitivna disonanca

Psihološka teorija o kognitivni disonanci pokaže, da ljudje težko preidejo od enega pogleda na realnost na drugega. Če v nekaj močno verjamejo in jih kasneje dejstva soočijo z napačnostjo njihovega pogleda, bodo številni raje vztrajali pri starem verovanju, kot pa da bi sprejeli nov pogled. Sprejetje novih dejstev je namreč lahko preveč boleče in onemogoča ohranjanje podobe o sebi, ki jo je nekdo prej imel. Raziskovanje kronologije podkev je nazoren primer, kako kognitivna disonanca usmerja poglede na dokazno gradivo in tako vpliva na kronologijo podkev.



Sl. 2: Aldaieta, Baskija, Španija. Primeri podkev:

a – iz groba B17; b in c – med grobovi. M. = 1:2.

Fig. 2: Aldaitea, Basque Country, Spain. Examples of horseshoes: a – from Grave B17; b and c – between graves. Scale = 1:2.

(po / after Azkarate Garai-Olaun 1999, Fig. 50: 89; 52: 93; 126: 6)

V začetni stopnji raziskav podkev je veljalo, da se pojavljajo že v latenskem obdobju. Vendar je sum vzbudila že preprosta okolnost, da naj bi se potem oblike podkev v več kot tisočletju prav nič ne spremenile (prim. Clark 2004, 79). O pravilnosti najdbenih kontekstov in o kronologiji sami je v Britaniji že leta 1941 odločilno podvomil Ward Perkins (Clark 2004, 81). Na celini je to vlogo prevzel Walter Drack, ki je hkrati želel postaviti zanesljivo kronološko izhodišče tako, da se je oprl na dobro stratificirane in datirane najdbe s švicarskih gradov, zaradi česar nobena njegova podkev ni starejša od 10. st. (Drack 1990). To je bil odločilen preobrat k drugi stopnji raziskav kronologije podkev. Zgodnje datiranje podkev je postalo zastarelo, vse zgodnje datacije pa predmet kritičnega preinterpretiranja.

Res, le kako bi lahko vedeli za podkev s prometne površine, ki je bila v neprekinjeni uporabi več kot tisoč let, kdaj je bila izgubljena ali odvržena. Če k temu prištejemo še pojav, da neka stratigrafska enota lahko vsebuje predmete, ki niso iz časa njenega nastanka, ampak so v njej kot starejši (*residual*) ali mlajši (*intrusive*) vrinek (prim. Clark 2004, 78), potem se znajdemo na zelo tankem ledu povsem osebnega razsojanja, kaj je staro, kaj pa mlado ter kaj je stratigrafsko zanesljivo in kaj ni. Ali z drugimi besedami, tudi ko naj bi se oprli na stratigrafijo, lahko vsak predmet neodvisno od nje naredimo mlad ali star, kakor nam je pač ljubo. Treba je samo razglasiti pojav vrinkov.

Zato so toliko pomembnejša izkopavanja grobišča Aldaieta (Baskija), ki so med grobovi odkrila večje število podobnih si podkev z gladkim robom, brez ozobcev in brez žleba za žeblice (sl. 2) ter eno tako celo v tamkajšnjem grobu B17 (Azkarate Garai-Olaun 1999, 98, 183–185, 499). Horst Wolfgang Böhme je grobišče pojasnil kot ostanke frankovskega bojišča iz druge tretjine 6. st., za nas pa je pomembno njegovo opozorilo na potrebo po ponovni proučitvi vprašanja izvora in kronologije podkev (Böhme 2002, 145–150). Opozorilo ni ostalo brez učinka. Simone Martini, ki sicer še vztraja pri Drackovi členitvi srednjeveških podkev na dve časovni skupini, jo je vendarle že dopolnila še s starejšo, zgodnesrednjeveško skupino (Martini 2010, 78). Obratno ob tem še vedno obstajajo tudi kronologije, ki se jih je razprava zadnjega pol stoletja nesrečno izognila (Busuladžić 2005 temelji na Vikić, Walter 1955).

Raziskovalec najdišča Aldaieta Agustín Azkarate Garai-Olaun je v odgovor Böhmeju z antropološkimi podatki o starosti, spolu in sorodstvenih vezeh, ki

jih kažejo podatki DNK, ter s kronološko analizo predmetov dokazal, da gre za grobišče drugačnega nastanka. V uporabi naj bi bilo od sredine 6. st. do najmanj druge polovice 7. st., groba s podkvijo ni podrobneje datiral (Azkarate Garai-Olaun 2004; 2005–2006). Podkev bi bila v grobu lahko kot del zasutja, kar bi pomenilo, da ni mlajša od groba, je pa od njega morda celo starejša. S tem je postalo očitno, da so bile podkve v uporabi že zelo dolgo pred 9. st. prav v navidezno "praznem" obdobju in da ta praznina ni nič drugega kot posledica pretirane uporabe interpretativne doktrine, po kateri zgodnjih podkev ne sme biti. V nadaljevanju bo prikazano, da "milejša" presoja najdb lahko zapolni praznino, pojasni nastanek podkev in predloži njihovo smiselno tipologijo in kronologijo.

## KLASIFIKACIJA IN KRONOLOGIJA PODKEV

Tudi pri podkvah se njihove klasifikacije opirajo na obliko, pri čemer je v ozadju tiho prepričanje, da je s tem mogoče prepoznati tudi spremembe v času. Ob tem se ponuja skušnjava klasificiranja na osnovi merskih podatkov, oblike locna in krakov, števila in razporeditve lukenj za žeblje ter še zlasti različno oblikovanih ozobcev. Tako je Rudolf Krajc, ki je izhajal iz podrobne klasifikacije Józefa Kaźmierczyka, naštel 31 različic, pri čemer ni izčrpal vseh možnosti. Vendar je že sam opazil in opozoril, da vsaj tretjine podkev ni mogel uvrstiti v lastno klasifikacijo, ker so bile slabo ohranjene, pogosto pa je en del iste podkve pripadal enemu oblikovnemu tipu, drugi pa drugemu (Krajc 2003, 102). Tako se je sam zadovoljil z 18 oblikovnimi tipi in jih nato uporabil 15, ki pa se pojavljajo večinoma sočasno (s pregledom starejših klasifikacij Krajc 2003, 102–105). Podobne težave je imel Piotr Świątkiewicz, ko je skušal klasificirati podkve iz Gdańska (Poljska) po zelo podrobno razčlenjeni klasifikacijski shemi Kaźmierczyka. Izkazalo se je, da je zaradi različne ohranjenosti in nemajhne individualnosti podkev podrobna klasifikacija težka, nekatere oblikovne značilnosti je namreč mogoče presojati različno (prim. Świątkiewicz 2012, 34–36). Vse to kaže, da klasifikacija podkev, katere edini namen je čim bolj podrobna opredelitev oblike podkve, zgreši namen.

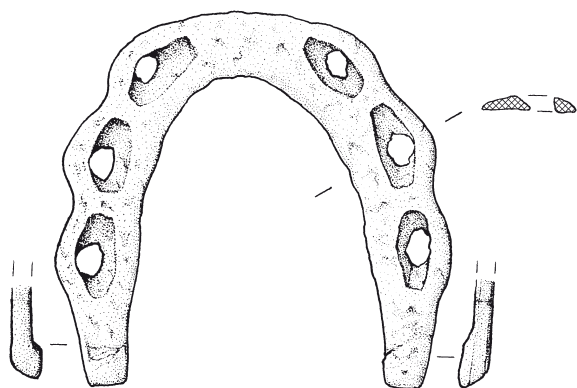
V nadaljevanju bom primerjal dve klasifikaciji in kronologiji podkev, ki obsegata celotno domnevno obdobje uporabe srednjeveških podkev, številne dobro ohranjene podkve ter njihov podroben katalog in datacije posameznih primerkov. Vse

to omogoča vzpostaviti primerljivost obeh analiz ter s tem njuna ujemanja in razlike med njima. Gre za že omenjeno Drackovo študijo, ki obsega obdobje od 10. do 16./17. st. (Drack 1990), in za analizo okrog 360 srednjeveških londonskih podkev Johna Clarka (Clark 2004). Prva je utemeljena z datiranimi plastmi švicarskih gradov, druga večinoma s kronološkimi fazami londonske lončenine, ki predstavljajo arheološki kontekst podkev in obsegajo obdobje od okoli 900 do okoli 1450. Pri tem samo tri podkve spadajo v čas med 900 in 1050 (Clark 2004, 91).

**Drack** je svoje podkve po obliki roba razdelil na dve skupini. Starejša od 10. do 13./14. st. naj bi obsegala podkve z valovitim robom, mlajša od 13./14. do 16./17. st. pa podkve z gladkim robom in zato lepo polmesečastimi kraki – *Mondsichelruten* (Drack 1990, 207). S tem je zadostil tihi predpostavki, da različni oblikovni tipi samoumevno pomenijo različne časovne plasti. Njegov lastni katalog tej samoumevnosti oporeka. Medtem ko je podkev z gladkim robom iz Scheidegga (Drack 1990, 207, 210, Abb. 12: 15) datirana v 13. st., so enako oblikovane podkve iz Habsburga (Drack 1990, 207, 210 Abb. 12: 5–7) opredeljene kot z valovitim robom (vsaj primerek Abb. 12: 7 ga zanesljivo nima) in datirane v 11./12. stoletje. Podkve z gladkim robom z najdišč Ensérune (Francija) in Aguilar de Anguita (Španija) so datirane v 10.–12. st. (Drack 1990, 214, Abb. 14: 8, 10–15). To pomeni, da se podkve z gladkim robom pojavljajo v vsem opazovanem obdobju. Dveh časovno ločenih skupin podkev torej ni, predpostavka pa je napačna.

**Clark** je londonske podkve razdelil na 4 oblikovne tipe. Merila so mu bila oblika roba podkve ter oblike lukenj za žeblje in ležišče za glave žebeljev. Tip 1 ima po tri luknje za žeblje na vsaki strani locna. Te so okrogle in imajo pravokotno ali ovalno ležišče za glavo žeblja, ki lahko vpliva na izboklost roba podkve. V tem primeru se podkev približuje tipu 2A z valovitim robom. Pripadajoči žebli imajo T-obliko – torej s plosko glavo, za katero pa Clark dopušča možnost, da gre zgolj za obrabljene izbokle glave, kakršne so bili najdene tudi v skupkih, ki so dali podkve tipa 1. Nizki ozobci so na podkvah samo izjemoma (Clark 2004, 85–86, Fig. 80). Tip 2 so podkve, ki imajo ozek in debel locen ter valovit rob (*sl.* 3). Luknje za žeblje so narejene s spodnje ali zgornje strani. Razvrščene so po tri na vsaki strani locna. Clark loči tip 2A, ki ima okrogle luknje za žeblje, od tipa 2B, ki ima pravokotne in bolj izdelane. V obeh primerih imajo predrtine globoka ležišča





Sl. 3: London, Velika Britanija. Podkev z valovitim robom. Ni v merilu.

Fig. 3: London, Britain. Horseshoe with a wavy edge. Not to scale.

(po / after Clark 2004, Fig. 81: 111)

za glave žebeljev, kvadratne ali zaobljene oblike. Pripadajoči žebliji imajo izboklo glavo. Poznani so tudi taki s trapezoidno glavo. Glave so pogosto tako obrabljene, da imajo T-obliko. Ozobce različnih oblik na enem ali obeh krakih ima 91 % podkev (Clark 2004, 86, Fig. 81–82). Ob tem se postavlja vprašanje, ali morda niso Clarkove trapezoidne glave žebeljev samo obrabljene piramidne.

Tip 3 so težje podkve, ki imajo pravokotne luknje za žebelje, z ozkimi pravokotnimi ležišči za njihove glave. Luknje so pogosto precej oddaljene od roba podkve, ki ni valovit. Pogosto imajo podkve tega tipa po 4 luknje na vsakem kraku. Če imata kraka različno število lukenj za žebelje, ima zunanji več lukenj. Podkvam pripadajo žebliji z izboklo glavo, pa tudi taki s pravokotno. Ozobce različnih oblik na enem ali obeh krakih ima 78 % podkev (Clark 2004, 86–88). Tip 4 se od drugih loči po oblikah lukenj in po žeblih. Luknje nimajo ležišč za glavo žeblija, so kvadratne ali pravokotne in se ožijo navzgor. Zdi se, da so pravokotne luknje na splošno mlajše od kvadratnih, v uporabi so bile v glavnem po letu 1350. Luknje so po tri ali štiri na vsakem kraku locna. Žebliji imajo kvadratno ali pravokotno glavo, ki je debelejša od stebila. Ozobci različnih oblik so manj pogosti, vendar jih ima še vedno več kot polovica podkev. Med podkvami tega tipa se pojavljajo tudi take, ki majo luknje enakomerno razporejene po celem locnu (Clark 2004, 88–91, Fig. 86–89).

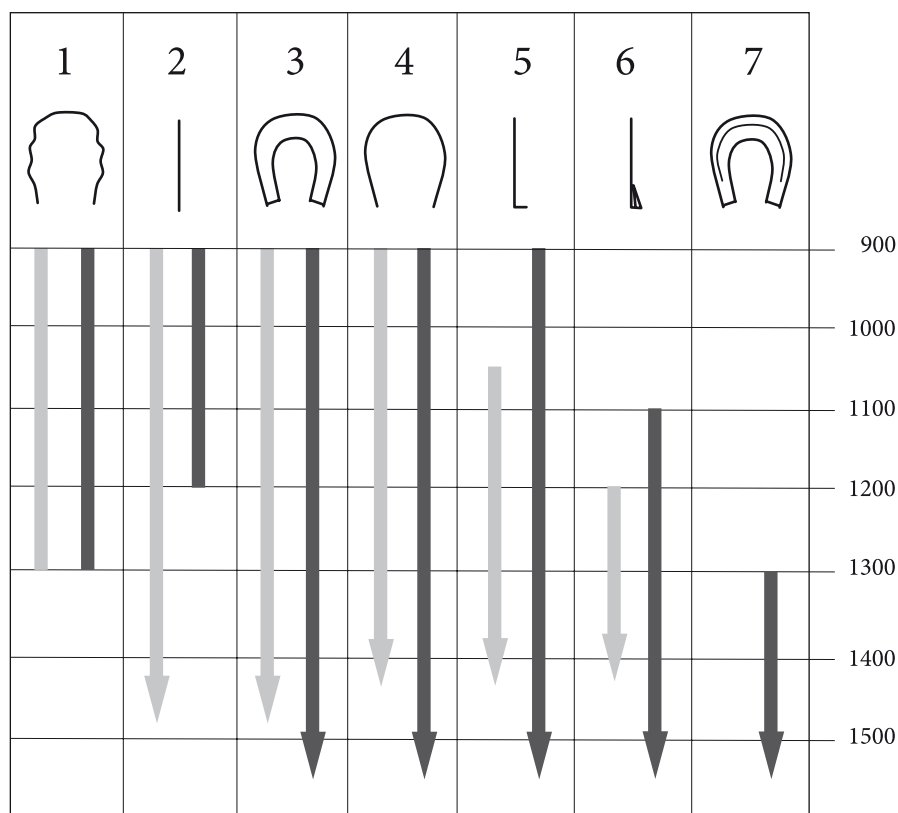
Približno polovico od obravnavanih podkev je bilo mogoče datirati s pomočjo najdiščnih okoliščin. Tako je Clark določil obdobje njihovega trajanja

in ga primerjal še z najdbami drugod po Britaniji. Pri interpretaciji je opozoril na možnost, da so odslužene podkve hranili za nadaljnjo predelavo. Izsledke je povzel v posebni preglednici, po kateri so podkve tipa 1 v uporabi od okoli 900 do okoli 1150, tipa 2A od okoli 1050 do okoli 1350, tipa 2B od okoli 1150 do okoli 1350, tipa 3 od okoli 1200 do okoli 1400 in tipa 4 od okoli 1270 najmanj do 17. st. (Clark 2004, 91–97, Fig. 74–75).

Večje število opazovanih sestavin je dalo Clarku več tipov, njihova številnost pa dovolj dobro datirane skupine, ki se v veliki meri časovno prekrivajo. Tak rezultat potrjuje opažanje, da se "celinski" Drackovi skupini v resnici časovno prekrivata. Vsekakor se gre strinjati s Clarkom, da so podkovski žebliji neločljivo povezani s podkvijo in njeno funkcionalnostjo. Vendar je oblika rabljenih žebeljev zanesljivo drugačna od oblike novih, razločevanje oblik lukenj za žebelje pa je pri večinoma slabo ohranjenih in pogosto zelo obrabljenih podkvah preveč prepuščeno osebni razsodbi opazovalca. Podrobnejši pregled zato pokaže, da je tudi Clarkova klasifikacija odločilno odvisna od njegove želje določiti čim večje število oblikovnih tipov. Skupina 4 se od skupine 3 loči predvsem po tem, da naj njene podkve ne bi imele ležišč za glave žebeljev. Vendar upodobljene podkve temu oporekajo, ker imajo večinoma dobro vidna ležišča (Clark 2004, 86–89). Na kaj biti potem pozoren?

**Nekoliko drugače.** Zato je na tej stopnji raziskav bolje graditi klasifikacijo na najlažje prepoznavnih sestavinah podkev: oblika roba, prisotnost ali odsotnost ozobcev ter prisotnost ali odsotnost žleba za žebelje. Tako je mogoče sestaviti skupino preprostih meril: gladek rob, valovit rob, brez ozobcev, z ozobci (z odebeljeno peto), brez žleba za žebelje, z žlebom. In očitno je bolje opazovati vsako sestavino posebej, kot pa takoj poskušati opredeljevati cele podkve, ne da bi že razumeli, kako in zakaj se pojavljajo sestavine.

Po obeh obravnavanih katalogih je mogoče dobro spremljati pojavljanje naštetih sestavin v času (sl. 4). Vidimo pojavljanje in izginjanje sestavin, na čemer lahko gradimo kronologijo podkev. Čeprav so podkve iz Drackove zbirke posamično datirane večinoma le na dvesto let natančno in so ožje datacije izjema, podkve iz Clarkove zbirke pa večinoma datirane ozko na 30 do 50 let, se razvoja v Britaniji in na celini precej ujemata. Manjše razlike so morda delno posledica stanja raziskav. Sem bi lahko spadal navidežno poznejši začetek uporabe ozobcev v Britaniji, ker so bile Clarku na



Sl. 4: Sestavine podkev (po Drack 1990 in Clark 2004). 1 – valovit rob, 2 – brez ozobcev, 3 – brez žleba, 4 – gladek rob, 5 – ozobci, 6 – odebeljena peta, 7 – žleb za žeblje. Svetli trak so londonske podkve, temni trak so celinske, predvsem švicarske.

Fig. 4: Components of horseshoes (after Drack 1990 and Clark 2004). 1 – wavy edge, 2 – without calkins, 3 – without fullering, 4 – smooth edge, 5 – calkins, 6 – feathered heel, 7 – fullering. The light strips mark the horseshoes from London, the dark strips those from the continent, mostly from Switzerland.

voljo le tri londonske podkve iz časa pred letom 1050. Vsekakor pa je tam mlajših podkev dovolj, da je Clarkova trditev, da se oprimnice in žlebovi za žeblje pojavijo na britanskih podkvah šele v novem veku (Clark 2004, 82), precej zanesljiva in pomeni, da so žleb za žeblje uvedli na celini vsaj nekaj stoletij pred Britanci, medtem ko je oprimnica očitno tudi na celini novoveškega izvora.

Čeprav je zaradi grobosti časovne razpredelnice, ki zaokroža na stoletja, videti, da se podkve z gladkim in valovitim robom pojavijo sočasno, podrobnejše datacije britanskih podkev omogočajo natančnejši vpogled. Medtem ko je mogoče samo eno podkev z valovitim robom zanesljivo postaviti v 10. st. in take podkve prevladujejo v 11. in 12. st. (Clark 2004, 95, Fig. 74), pred tem prevladujejo podkve z gladkim robom (Clarkov tip 1: Clark 2004, Fig. 75). En primerek tipa 1 je zanesljivo datiran najpozneje v konec 9. st. in če Clark ne bi imel tihe predpostavke, da so samo okrogle luknje za žeblje

značilnost zgodnjih podkev, bi lahko priznal še starejšo podkev iz Wicken Bonhunta v Essexu, ki je bila najdena v dobro stratificiranem kontekstu iz 8. do 9. stoletja. Ker pa je imela pravokotno luknjo za žebelj, je luknjo razglasil za neznatno in podkev datiral pozneje (Clark 2004, 94). To pomeni, da jo je posredno razglasil za mlajši vrinek v starejšo plast, da bi obvaroval svojo klasifikacijo. Prav okrogle luknje za žeblje v njegovi razdelitvi namreč ločijo podkve tipa 1 od podkev tipov 3 in 4. Če bi priznal veliko starost podkve iz Wicken Bonhunta, bi bil tipološki oziroma kronološki pomen okroglih lukenj za žeblje ogrožen in enako bi bila ogrožena smiselnost členitve na tipe 1, 3 in 4. Pri tem gre seveda spet za problem kognitivne disonance, katere rezultat je sklep, da je toliko slabše za predmet, če se ne vklaplja v tipologijo. Vendar je tudi brez zadnje opisane podkve povsem očitno, da podkve z gladkim robom obstajajo že pred podkvami z valovitim robom in da se te druge pojavijo šele v 10. st.

Kronološko podobno je z ozobci, kjer je mogoče ločiti različne izvedbe (npr. Clark 2004, Fig. 59). K različicam ozobcev verjetno lahko prištejemo tudi odebeljeno peto (sl. 1), ki je poskusno uvrščena v razpredelnico (sl. 4: 6). Kolikšno kronološko vrednost imajo različice ozobcev, bo še treba raziskati v prihodnosti s pomočjo večjega števila dobro datiranih podkev. Clarkov tip 1 je v veliki večini brez ozobcev, edina londonska podkev tega tipa z ozobci je iz druge polovice 11. st., medtem ko imajo podkve z valovitim robom v veliki večini ozobce (Clark 2004, 85–86). To pomeni, da ozobcev v Britaniji v 10. st. verjetno še ni bilo. V primerjavi s celino bi to govorilo za nekaj različnih možnosti. Prva bi bila, da se na celini ozobci pojavijo nekaj prej, a malo verjetno pred 10. st. Druga bi bila, da grobe datacije celinskih podkev pojav ozobcev samo navidezno vlečejo že v 10. st. in so se tudi tam ozobci pojavili šele v 11. stoletju.

Iz soočenja Drackove in Clarkove zbirke je mogoče povzeti, da so podkve z gladkim robom starejše od valovitega roba, da obe obliki nato vztrajata ves čas vzporedno, pri čemer druga prevladuje v 11. in v 12. st. ter jo do 14. st. prenehajo izdelovati. Tudi ozobci so mlajši pojav, ob njih pa so še naprej v uporabi podkve brez ozobcev, v Britaniji do novega veka, medtem ko jih na celini Drackova zbirka po 12. stoletju ne kaže več. Za britanske podkve brez ozobcev se zdi, da so od 11. st. v manjšini, za celinske pa je to verjetno. Kot celinska novost se še v srednjem veku pojavi žleb za žeblje, oprimnica pa je novoveški izum.

### Od kod torej podkve

Da bi se funkcionalno tako izpopolnjen predmet, kot so podkve, razvil popolnoma iz nič, je neverjetno. Kot najbolj logično izhodišče se ponujajo rimski železni kopitni natikači (*solea ferrea*), ki so jih na kopita privezovali. Vendar obstaja večstoletna vrzel med prenehanjem uporabe takih natikačev v 4. st. in domnevno srednjeveško uvedbo podkev v 9. stoletju (prim. Steuer 2000, 195–196). Tu naletimo na dokazno protislovje doktrine "pozni" podkev.

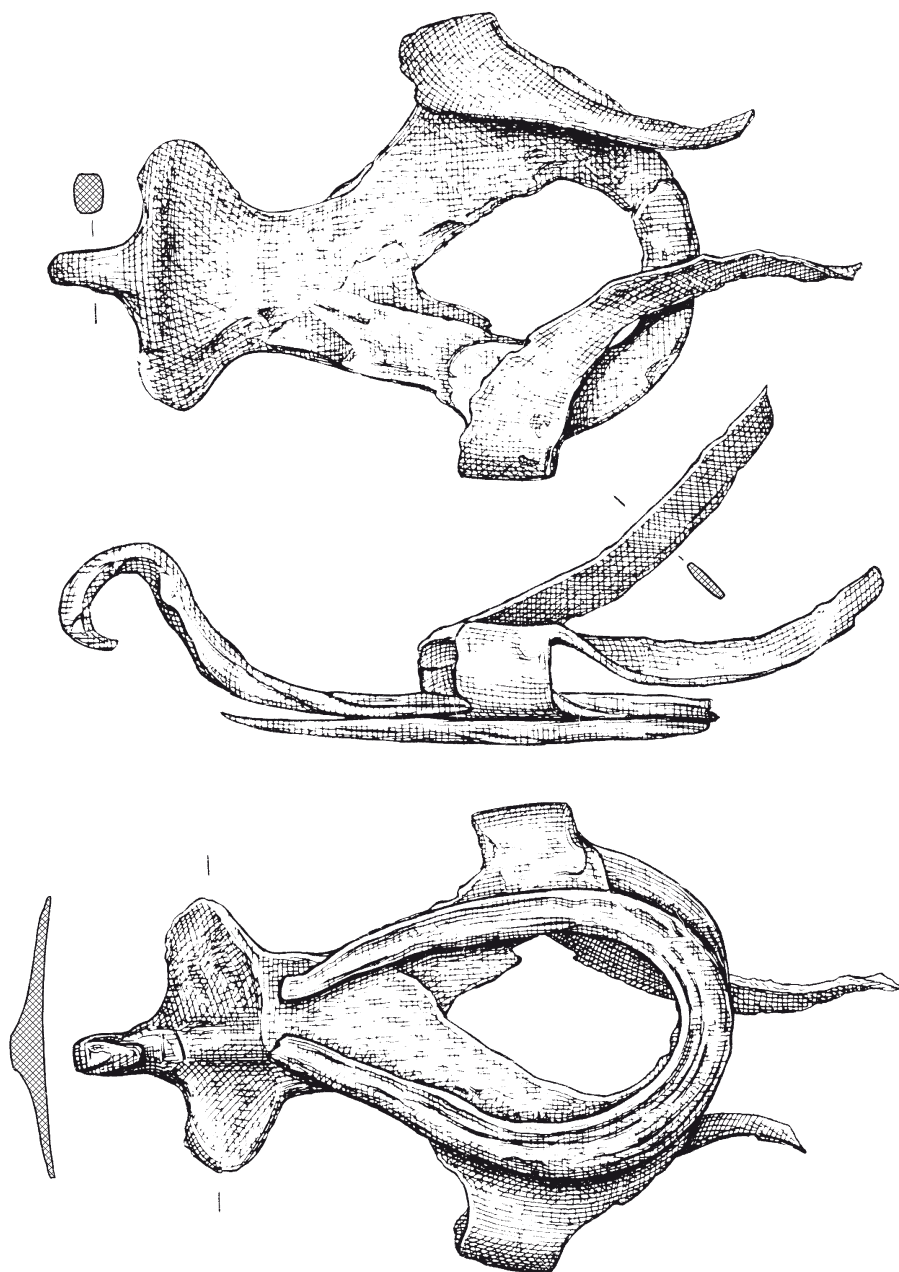
Da natikačev ni v arheoloških plasteh od 5. st., lahko pojasnimo z dvema razlogoma. Prvi so gospodarsko-prometne spremembe v 5. stoletju, zaradi katerih so na ozemlju cesarstva prenehali uporabljati trda cestišča ter vlečne in tovrstne živali, drugi bi bil, da natikačev niso več uporabljali, ker so imeli boljši nadomestek. Dokazno protislovje je v tem, da je sorazmerna mladost

podkev na starih cestiščih in ob njih utemeljena z dokazano tisočletno uporabo teh cestišč, torej z nespremenjenimi prometnimi razmerami, kakršne bi potem zahtevale nadaljnjo uporabo kopitnih natikačev, ki pa je ni bilo. Če ugotavljamo, da se prometne razmere niso spremenile, da je zato še vedno obstajala potreba po podkvah in da kopitni natikači od 5. st. res niso bili v uporabi, potem je mogoče postaviti trditev, da je napaka v doktrini "pozni" podkev.

Zato se kaže vrniti h kopitnim natikačem, ki so bili namenjeni vlečnim in tovornim živalim in niso bili primerni za jezdne živali (Lawson 1978, 133; Pflaum 2007, 326; Martini 2010, 74). Še vedno je uporabna klasifikacija Xavierja Auberta, ki glede na način pritrdjevanja loči tri tipe (tipi 1, 2 in 3), kar je še z dvema (tipa 4 in 5) dopolnil W. H. Manning (Manning 1985, 63–66). Lawsonova natikače prvih treh tipov datira od druge polovice 1. do 4. st., pri čemer zgolj domneva, da bi bil tip 1 morda najstarejši (Lawson 1978, 136). Manning zaradi londonskih primerkov meni, da je bil tip 2 v uporabi pred 3. st. (Manning 1985, 65). Vse to se ujema z opažanjem Dragana Božiča in Veronike Pflaum, da so v zakladnih najdbah 3. st. samo natikači tipa 3 in je tip 1 starejši (Pflaum 2007, 325–326). Tip 3 ima pogosto nažlebljeno spodnjo površino, kar naj bi omogočalo boljši oprijem. V času uporabe tega tipa so uvedli izboljšavo, ki je omogočila opazen prihranek železa. Gre za luknjo v podplatu. Taki natikači se pojavljajo v četrtem ali petem stoletju (Manning 1985, 63–65). V Londonu je bil najden tovrsten primer, ki pa ima na talni strani namesto žlebov za boljšo oprijemljivost dodan podkvast okov (Manning 1985, 65). Ta okov je več kot očitno vmesni člen (sl. 5) med kopitnimi natikači in podkvami.

**Ko se je zgodil prvemu kovaču miselni preskok, da je mogoče podkvast okov na kopito kar pribiti in ne samo privezovati, kot so delali dotlej, se je rodila podkev.** Poleg boljše oprijemljivosti in s tem uporabnosti tudi za jezdne živali je prinesla pomemben prihranek surovine za izdelavo. Ni zagotovljeno, da se je to zgodilo v Britaniji, a možnost obstaja. Vsekakor pa se je uporaba podkev sčasoma razširila po rimskem cesarstvu.

V tej luči tudi trditev Mortimerja Wheelerja, da je našel v Maiden Castlu (Britanija) podkve iz poznega 4. ali zgodnjega 5. st., ni nujno – zaradi možnosti mlajših vrinkov – popolnoma zgrešena, kot je prepričan Clark (Clark 2004, 80), ki pa se je hkrati vzdržal komentarja k najdbi podkve Charlesa Greena v Caisterju (Britanija) s poznorimske ceste,



Sl. 5: London, Velika Britanija. Kopitni natikač s podkvastim okovom.

Fig. 5: London, Britain. Hipposandal with a horseshoe-shaped strip.

(po / after Manning 1985, Pl. 28: H7)

ki je bila tako zelo opuščena, da se je sčasoma vse znašlo pod grobom iz srednjega anglosaškega obdobja (Clark 2004, 79).

#### Slovanska *\*podŕkova*

Vsi slovanski jeziki imajo besedo za podkev, ki izhaja iz splošnoslovanske oblike *\*podŕkova*, ki je

sestavljena iz *\*podŕ* in *\*kovati*, kar pomeni *\*kar se spodaj kuje* (Snoj 1997, 459). Praslovansko *\*kovati* pa je izpeljano iz indoevropske osnove *\*kaHu-*, *\*kawH-* "tolči" (Snoj 1997, 265). Splošnoslovanska oblika je bila privzeta v slovanski jezik najkasneje v 8. st., morda še v 9. st. (Marko Snoj, ustno pojasnilo). Slovansko poimenovanje je torej izpeljano iz načina pritrditve predmeta, ki se ga pribije od spodnje strani na kopito. To je pomemben poda-



tek za zgodovino podkev v Evropi. Pove namreč, da so se Slovani srečali s podkvami v času, ko so bile notranjeslovanske povezave še žive, da so bili tedaj to že predmeti, ki so jih pribijali na konjska kopita, in da podkev niso dobili od sosedov skupaj s tujim poimenovanjem. Še več, besedo so od Slovanov prevzeli tudi Albanci in Romuni (Snoj 1995). Tudi če so ti nekoč že imeli svojo besedo za podkev, jo je slovanska izpodrinila, bodisi zato, ker je bil slovanski jezik prestižnejši, bodisi zato, ker je označevala tehnično inovacijo, ali iz obeh razlogov (Marko Snoj, ustno pojasnilo). Po drugi strani še velja, da se podkve pojavljajo pri zahodnih Slovanih od 10. st. (Każmierczyk 1978, 147; Steuer 2000, 195). To bi nakazovalo, da so se Slovani pri svoji naselitvi na Balkan in v Alpe srečali s podkvami v 6. in 7. stoletju ali vsaj ne dolgo za tem, od tam pa so se postopoma – skupaj s poimenovanjem – širile med Slovani proti severu. Da podkev niso uporabljali Avari, je povsem logično, saj so poznali uporabo konj, ki ni potrebovala podkev, tako kot so tudi znali kot jezdeci brez ostrog obvladati konje. Podobno je bilo pozneje pri Madžarih in Tatarih (prim. Slivka 1980, 260–261).

### NEKAJ RAZLIČNIH SKUPIN PODKEV KOT KONTROLNO GRADIVO

Med zagovorniki poznega pojava podkev veljajo najdbe z gradišča **Runden Berg pri Urachu** (Nemčija) za enega najstarejših primerov uporabe podkev. Tam je bilo najdeno večje število podkev, ki imajo skoraj vse gladek rob in so brez ozobcev, domnevno spadajo v poznokarolinško ali otonsko obdobje, vsekakor pa se poselitve najdišča konča v prvi polovici 11. st. (Kind 2001).

Tudi na zgodnjersrednjeveškem gradišču v mestu **Sopot** (med Gdynjo in Gdańskom, Poljska) je bila najdena podkev. Tam je bila naselbina že od 8. st., gradišče je bilo v uporabi od sredine 9. do konca 10. stoletja. Slabo ohranjena podkev ima gladek rob in je videti brez ozobcev (Szymańska-Bukowska 2005, Ryc. 10. c). Podkev je ležala znotraj gradišča in ni mlajša od 10. st.

Gradivo z gradu v lužiškem **Mišnu/Meißen** v vzhodni Nemčiji nakazuje razvoj podkev v obdobju od 10. st. do okoli leta 1200. V 10./11. st. so bile tam tako podkve z ravnim robom in brez ozobcev (Schmid-Hecklau 2003, Abb. 2: 1) ter tudi podkve z valovitim robom in prav tako brez ozobcev (Schmid-Hecklau 2003, Abb. 2: 4). V 11./12. st. se začenjajo pri obeh vrstah podkev

pojavljati ozobci, slednji tudi kot odebeljene pete (Schmid-Hecklau 2003, Abb. 2: 6,7; 3: 1,4). Podkev z ravnim robom in zelo širokimi kraki iz okoli leta 1200 ima ozobce na obeh koncih in na vrhu locna. In če ne gre za risarsko pretiravanje, ima podkev tudi žleb za žeblje (Schmid-Hecklau 2003, Abb. 3: 6), kar je stoletje pred podkvami Drackove zbirke.

V plasteh gradu **Raabs an der Thaya** (Avstrija) iz zgodnjega 11. st. je bilo tudi 7 podkev, ki imajo gladek rob, večina pa že valovitega, samo ena ima ozobce, druge so brez njih (Felgenhauer-Schmiedt 2006, 30–31, 34, Taf. 12).

Dvanajst podkev iz naselbinskih plasti **Gdańska** (Poljska) kaže konec 12. st. in na začetku 13. st. sočasno uporabo podkev z ozobci in brez njih ter sočasno uporabo podkev z gladkim in tistih z valovitim robom. Podkev brez ozobcev je iz obdobja 1200–1220. Izstopajoči sta podkvi z valovitim robom iz obdobja 1320–1410 in celo po 1410 (Świątkiewicz 2012, Tabela 7; Tablica XIII, XIV), kar je več kot stoletje pozneje kot pri podkvah iz Clarkove in Drackove zbirke (sl. 4: 1). Zanimivo je tudi, da v starejših naselbinskih plasteh podkev ni. Świątkiewicz podkve pridružuje obravnavi vojaške opreme, kar je po eni strani upravičeno, ker so bili tudi bojni konji podkovani. Po drugi strani pa ob tem ne smemo pozabiti, da podkev niso imeli zgolj bojni konji in zato podkev sama še ni dokaz bojevnikov.

Tudi na lužiškem gradu Ortenburg v **Budyšinu/Bautzen** v vzhodni Nemčiji je bilo najdenih nekaj podkev, ki kažejo v 13. st. uporabo valovitega robu, ozobcev, a tudi podkev brez njih. Zgodnjo uporabo žleba za žeblje potrjuje podkev iz 13. st., ki je hkrati še vedno brez ozobcev in ima gladek rob (Meffert 2002, 154, Abb. 89: 3–7; 90).

V husitskih vojnah je bilo opuščeno mesto **Sezimovo Ústí** (Češka), kjer so našli že več kot 18 tisoč železnih predmetov, med njimi 335 podkev, ki spadajo v čas od druge polovice 13. st. do leta 1420. Ni podkev brez ozobcev in med vsemi podkvami ima samo ena valovit rob, vendar je brez najdbenih podatkov. Ves čas se pojavljajo podkve brez žleba za žeblje in take, ki ga imajo. Vendar je od drugih samo ena zanesljivo iz 13. st. (Krajč 2003, 100–109). To kaže 13. st. kot tisto, v katerem so tam opustili valovite robove in uvedli žlebove za žeblje.

V naselbinskih plasteh najdišča **Vokovice v Pragi** (Češka), ki obsegajo obdobje od začetka 12. do druge polovice 19. st., so našli tudi 17 podkev (Chmielowiec, Kašpar, Zdaniewicz 2013, 301–304, Obr. 13, 14). Med njimi ni podkev z valovitim

robom, čeprav bi jih v 12. in 13. st. tam pričakovali. Že v 12. st. se pojavijo podkve z žlebom za žeblje, vendar take brez njega uporabljajo še ves čas do druge polovice 19. stoletja. Podobno je z ozobci; podkve z njimi in tiste brez njih so bile hkrati v uporabi od 16. do druge polovice 19. st., za starejši čas to ni zanesljivo. Samo ena podkev iz 19. st. ima oprimnico, vse starejše so brez nje.

### Nekaj primerov podkev iz Slovenije

#### Pristava na Bledu (sl. 6)

*Opis:* Gre za odlomek železne, tanke podkve z gladkim robom in pravokotnima predrtinama za podkovske žeblje. Dolžina 7,6 cm; širina 2,1 cm; debelina 0,35 cm. Hrani Narodni muzej Slovenije, Ljubljana, inv. št. S4292.

*Datacija:* Leta 1949 so pri izkopavanju grobišča in poti, ki je tekla med grobovi, na prostoru med grobovoma 240 in 243 našli odlomek podkve. Ležala je globlje od groba 240 in plitveje od groba 243. Severni grob 240 je bil ob odkritju plitvejši od južneje ležečega groba 243 in je bil najverjetneje vkopan v rob poti, ki je tekla skozi grobišče (Pleterski 2008, 80–93, sl. 3.53; 3.54; 3.64; 3.65; T. 39: 8). S tem se je prometna površina zožila. Zato lahko sklepamo, da je podkev prišla na svoje mesto pred zožitvijo poti, ker ni verjetno, da bi ljudje hodili in vozili čez grobove. To pomeni, da je odlomek podkve starejši od groba 240, ki je zožil pot.

Da bi bila podkev mlajši vrinek v starejšo plast, ni verjetno vsaj iz dveh razlogov. Ker gre za manjši, lahek odlomek tanke podkve (glej spodaj), se zaradi teže v stoletjih po odložitvi ni mogel pogrezati v spodnjo plast in biti zato od nje mlajši.

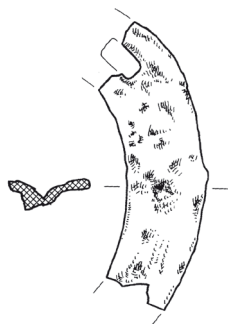
Trditvi, da bi šlo za mlajši vrinek, nasprotuje še eno opažanje. Zaradi kataklizmičnega vremenskega

dogodka, ki je poškodoval cestišče in grobove prekril z naplavinso plastjo (Pleterski 2008, 38–40, 90–93), se je odlomek podkve nedvomno znašel pod to plastjo. Dogodek, ki ga je mogoče stratigrafsko datirati v drugo polovico 7. st. (Pleterski 2008, 161), se zelo verjetno ujema z večdnevnimi silovitimi neurji, ki so leta 676 po 17. juniju zajeli Italijo (Pleterski 2010, 149–150) in lahko imeli usoden vpliv tudi na Pristavi na Bledu (Žagar 2010).

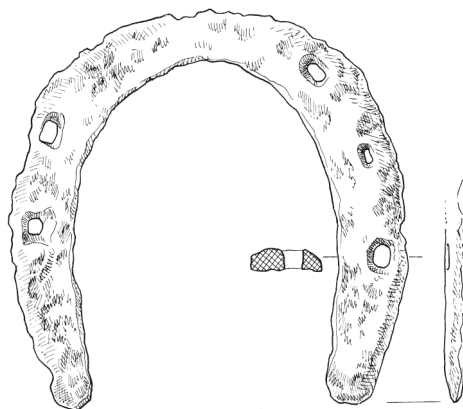
Pridatke ima grob 240. Timotej Knific ga je uvrstil med mlajše grobove starejšega dela pristavskega grobišča, vendar ne med najmlajše (Knific 1983, 22–26). Njegova sorazmerna "mladost" se ujema s tem, da so ga – očitno zaradi pomanjkanja prostora – vkopali v rob cestišča, kar se je zgodilo pred vremenskim dogodkom leta 676, precej verjetno še v prvi polovici 7. stoletja. Za starost odlomka podkve vse to pomeni, da ni mlajša od prve polovice 7. st., lahko pa bi bila tudi precej starejša.

#### Šentilj, jugozahodno od črpalke (občina Šentilj) (sl. 7), GPS: N46 40.264 E15 39.670.

*Opis:* Železna, srednje ohranjena z gladkim robom in brez ozobcev. Po tri (?) nesomerno postavljene luknje za žeblje na vsaki strani, danes zaradi korozije (?) preoblikovane in navidežno različnih velikosti, slutiti je prvotno pravokotno obliko. Locen je bil prvotno najverjetneje na celotni površini enako debel. Danes je njegov zunanji rob močno obrabljen, ponekod stanjšan do konca, zato je notranji rob sedaj debelejši. Dolžina 10,7 cm; širina krakov do 1,9 cm; debelina do 0,4 cm. Podkev hrani najditelj.



Sl. 6: Pristava na Bledu. Odlomek železne podkve. M. = 1:2.  
Fig. 6: Pristava in Bled, Slovenia. Fragment of an iron horseshoe. Scale = 1:2.



Sl. 7: Šentilj. Podkev. M. = 1:2.  
Fig. 7: Šentilj, Slovenia. Horseshoe. Scale = 1:2.

Podkev je bila najdena marca 2009 na severovzhodnem vznožju vzpetine, ki se dviga jugozahodno od bencinske črpalke ob stari magistralni cesti pri južnem uvozu v Šentilj. Ležala je v nariti zemlji pod novo potjo, ki so jo naredili do sosednjega travnika z ogrado za noje. Mesto najdbe je nekaj metrov nad dolinskim dnom, po katerem danes poteka cesta. Lega obeh šentiljskih podkev (glej še: Šentilj, vzhodno od kmetije Ornik) na nekoliko dvignjenem zahodnem obrobju doline, ki ni izpostavljeno poplavam, nakazuje staro traso magistralne ceste.

**Datacija:** Po obliki in manjši debelini podkev spada med najstarejše podkve, zato zelo verjetno sodi v čas od 5. do 10. stoletja, čeprav bi bil mogoč tudi še poznejši čas do 12. stoletja.

**Šentilj, vzhodno od kmetije Ornik** (občina Šentilj) (sl. 8), GPS: N46 40.603 E15 38.751.

**Opis:** Železna, srednje ohranjena z gladkim robom in ozobcema. Odebeljeni zunanji rob locna je močno obrabljen in zato zaobljen. Na vrhu je locen nekoliko odebeljen in neznatno zavihan navzgor, kar je posledica udarcev ob trdo podlago in ne oprimnica. Po tri somerno postavljene luknje za žeblje na vsaki strani so danes zaradi korozije (?) skoraj okrogle oblike. Iz istega razloga manjka del enega kraka. Dolžina 14,3 cm; širina krakov do 3,3 cm; debelina do 0,65 cm. Podkev hrani najditelj.

Podkev je bila najdena oktobra 2008 na kupu navožene zemlje vzhodno ob kmetiji Ornik. Tja so

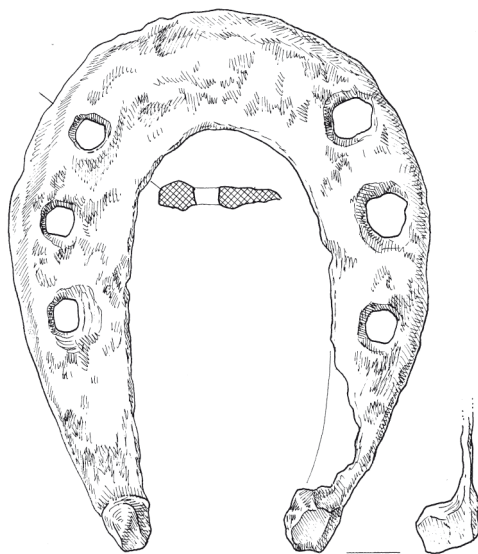
jo pripeljali z gradbišča naselja stanovanjskih hiš, ki stoji na zložnem travnatem pobočju zahodno ob stari magistralni cesti Maribor–Gradec, nekoliko nad samim dnom doline, po katerem danes poteka cesta. Priložnost, da bi pred gradnjo naselja raziskali morebitno staro traso magistralne ceste proti Flavii Solvi (prim. Pahič 1983), je bila zamujena.

**Datacija:** Ker ima podkev ozobce, ne pa še žleba za žeblje, jo je mogoče postaviti v čas 12. ali 13. st., ne gre pa izključiti niti mlajšega časa do 15. stoletja ali še pozneje.

**Vražji vrtec nad Babnim Poljem** (sl. 9). GPS: N45 38.924 E14 33.849.

**Opis:** Železna, srednje ohranjena z gladkim robom in kratkima ozobcema. Slutiti je žleb za žeblje. Sprednji rob je upognjen navzgor in če ne gre za posledico močnega udarca potem, ko je bila podkev že pritrjena, bi v tem lahko že videli preprosto oprimnico. Luknje za žeblje so razporejene v skupinah po tri in po dve. V treh luknjah so še trije podkovski žebli. Dolžina 9,4 cm; širina krakov do 3,7 cm; debelina do 0,7 cm. Podkev hrani Zavičajni muzej, Prezid (Hrvaška).

Podkev je bila najdena 5. julija 1985 na vzhodnem robu prazgodovinskega gradišča Vražji vrtec. Tičala je pod ploščatim kamnom, ki je ležal v globini 40 cm. Ker so bili nad kamnom odlomki prazgodovinske lončenine, pomeni, da je zakop podkve segel v prazgodovinsko naselbinsko plast (prim. Ciglencečki 1986). Motivacijo za zakop podkve lahko iščemo v prostoru zakopa. Vražji vrtec je staro kultno mesto (Pleterski, Šantek 2012, 68–70). Prav mogoče je, da je šlo pri zakopu podkve za magično dejanje.



Sl. 8: Šentilj. Podkev. M. = 1:2.

Fig. 8: Šentilj, Slovenia. Horseshoe. Scale = 1:2.



Sl. 9: Vražji vrtec na Babnem Polju/Prezid, Slovenija/Hrvaška. Podkev. M. = 1:2.

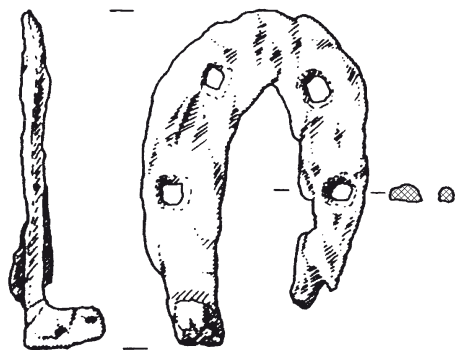
Fig. 9: Vražji vrtec in Babno polje/Prezid, Slovenia/Croatia. Horseshoe. Scale = 1:2.

**Datacija:** Zaradi ozobcev in žleba za žeblje podkev ni starejša od 12. st., možnost oprimnice pa obdobje nastanka podkve podaljšuje še vsaj do 16. stoletja.

### Stari grad nad Podbočjem (sl. 10)

**Opis:** Železna, z gladkim robom in enim ohranjenim ozobcem, drugi zaključek kraka manjka. Zaradi majhnosti se kraka stikata pod ostrim kotom. Pravokotne luknje za žeblje so razporejene v skupinah po dve. Dolžina 8,8 cm; širina krakov do 2,4 cm; debelina do 0,6 cm). Podkev hrani Posavski muzej, Brežice.

**Datacija:** Podkev je bila odkrita v stratigrafski enoti 141, ki predstavlja četrto fazo življenja na gradu in je dobro datirana v konec 14. st. ali začetek 15. st. (Predovnik 2003, 41, 182).



Sl. 10: Stari grad nad Podbočjem. Podkev. M. = 1:2.

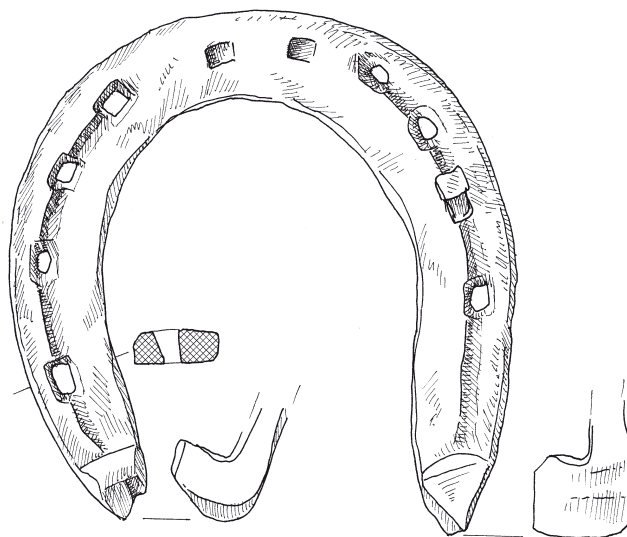
Fig. 10: Stari grad above Podbočje, Slovenia. Horseshoe. Scale = 1:2.

(po / after Predovnik 2003, sl. / Fig. 74: 718)

### Na Bleku na Krvavcu (naselje Ambrož pod Krvavcem) (sl. 11)

**Opis:** Železna, z gladkim robom, z ozobcema in z žlebom za glavice podkovskih žebeljev. Luknje za žeblje so razporejene v treh skupinah, vdolbini srednje skupine ne segata skozi telo podkve. V eni od lukenj še tiči podkovski žebelj. Dolžina 13,5 cm; širina krakov 2,5 cm; debelina 0,9 cm. Hrani Gorenjski muzej, Kranj, inv. št. A1565.

**Datacija:** Leta 2009 je bila v izkopu B3 odkrita 8 × 12 m velika dvocelična stavba, ki je imela v temelju severozahodnega vogala skrito konjsko podkev, položeno s talno stranjo navzgor. Razumemo jo lahko kot stavbno žrtev. Tamkajšnji domačini se še spominjajo navade polaganja podkev v temelje hiš. Gre za enkratni dogodek, ki ga je treba datirati v čas postavitve hiše, s tem pa tudi podkev



Sl. 11: Na bleku na Krvavcu nad Ambrožem. Podkev. M. = 1:2.

Fig. 11: Na bleku on Krvavec above Ambrož, Slovenia. Horseshoe. Scale = 1:2.

samo, če odmislimo malo verjetno možnost, da so uporabili naključno najdeno mnogo starejšo podkev. Pred tem je na istem mestu stala starejša stavba. Podkev stratigrafsko pripada mlajši stavbi (pisna informacija: Benjamin Štular).

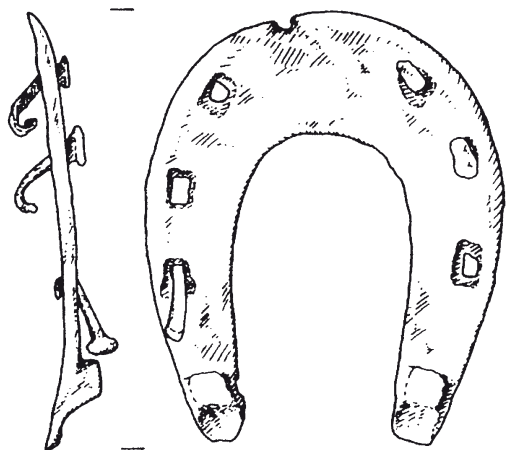
Datacija ostankov prismojene hrane na odlomku lončenine iz časa uporabe mlajše stavbe z metodo C14 ima kalibrirani 2 sigma časovni razpon od leta 1306 do leta 1437 (laboratorijska starost C14:  $550 \pm 37$ ; kalibrirano s programom OxCal 4.2 in s kalibracijsko krivuljo 2013). To se ujema z značilno lončenino 15. st., ki pripada stavbi, kar pomeni, da je temelj s podkvijo nastal najkasneje v prvi tretjini 15. st. (prim. Štular 2010, 266–269 in Štular, Pleterski 2011).

### Stari grad nad Podbočjem (sl. 12)

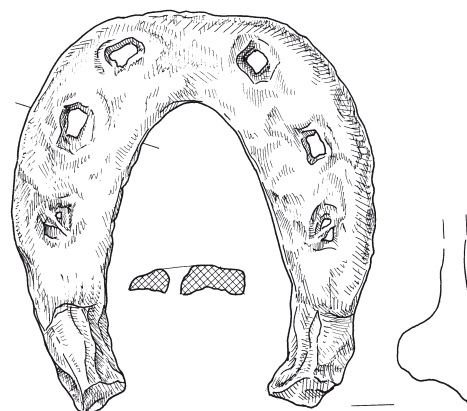
**Opis:** Železna, z gladkim robom in ozobci. Pravokotne luknje za žeblje so razporejene v skupinah po tri. V njih še tičijo trije podkovski žebli. Dolžina 11,6 cm; širina krakov do 3,2 cm; debelina do 0,4 cm. Podkev hrani Posavski muzej, Brežice.

**Datacija:** Podkev je bila odkrita v stratigrafski enoti 130, ki predstavlja hodno površino in njeno podlago v zadnji fazi obstoja gradu, ki je bil najverjetneje opuščen v drugi polovici ali ob koncu 15. stoletja (Predovnik 2003, 32, 41–42, 182).





Sl. 12: Stari grad nad Podbočjem. Podkev. M. = 1:2.  
Fig. 12: Stari grad above Podbočje, Slovenia. Horseshoe.  
Scale = 1:2.  
(po / after Predovnik 2003, sl. / Fig. 74: 716)

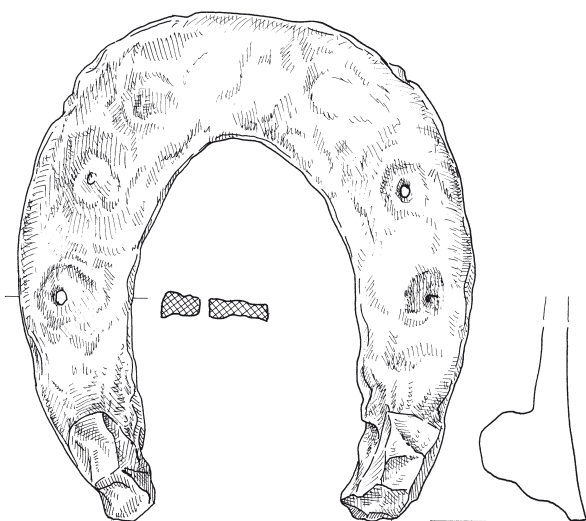


Sl. 14: Mali grad v Kamniku. Podkev. M. = 1:2.  
Fig. 14: Mali grad in Kamnik, Slovenija. Horseshoe.  
Scale = 1:2.  
(po / after Štular 2009, t. 3: 7)

#### Mali grad v Kamniku (sl. 13)

*Opis:* Železna, z gladkim robom in ozobci. V slabo ohranjeni površini je razpoznavni dve skupini po tri luknje za žeblje. Dolžina 13,4 cm; širina krakov do 3,8 cm; debelina do 0,7 cm. Podkev hrani Medobčinski muzej, Kamnik, inv. št. 7910.

*Datacija:* Podkev je bila najdena v temelju severovzhodnega vogala mestne utrdbe, kamor je bila odložena namensko. Utrdba je bila postavljena najverjetneje v zadnji četrtini 15. st. (Štular 2009, 66, 157, sl. 4.22; 8.6).



Sl. 13: Mali grad v Kamniku. Podkev. M. = 1:2.  
Fig. 13: Mali grad in Kamnik, Slovenia. Horseshoe. Scale = 1:2.  
(po / after Štular 2009, t. 3: 6)

#### Mali grad v Kamniku (sl. 14)

*Opis:* Železna, z gladkim robom in ozobci. Pravokotne luknje za žeblje so razporejene v skupinah po tri. Dolžina 10,5 cm; širina krakov do 3,1 cm; debelina do 0,8 cm. Podkev hrani Medobčinski muzej, Kamnik, inv. št. 7910.

*Datacija:* Podkev je bila najdena v temelju severovzhodnega vogala mestne utrdbe, kamor je bila odložena namensko. Utrdba je bila postavljena najverjetneje v zadnji četrtini 15. st. (Štular 2009, 66, 157, sl. 4.22; 8.6).

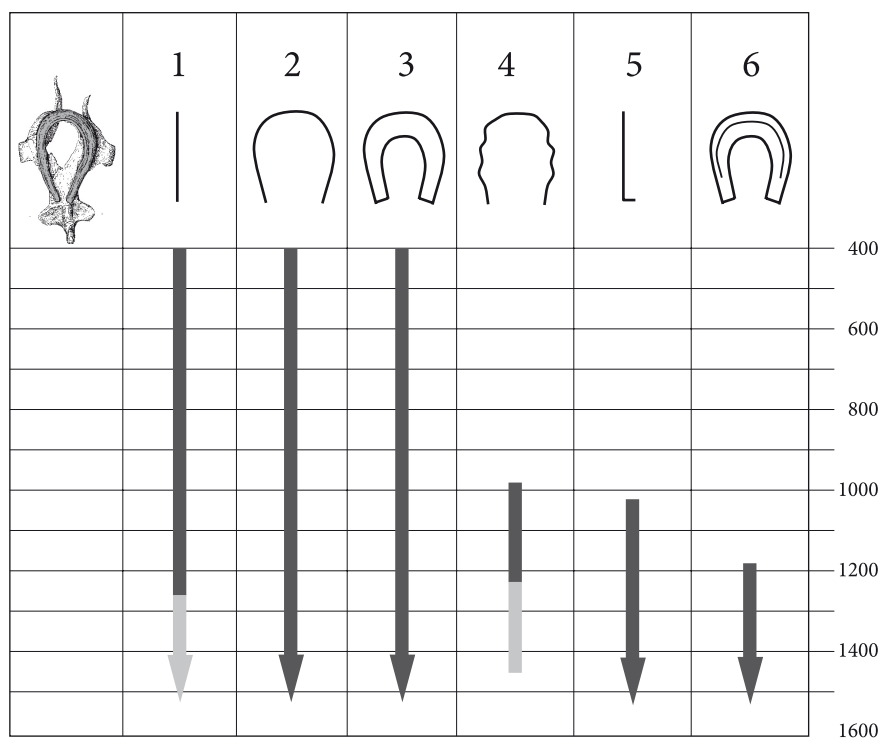
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Zgornjih devet podkev se v vsem ujema s splošno podobo razvoja podkev (sl. 15), nakazuje možnosti, ki jih pomeni proučevanje simbolnega pomena podkev, in možnosti, ki jih ponujajo podkve pri raziskovanju prometa in prometnic.

#### POVZETEK IN RAZMISLEKI

Zgornja raziskava kaže, da so se podkve uveljavile v 5. st. kot naslednja razvojna stopnja kopitnih natikačev (sl. 15). Obstaja celo vmesni razvojni člen (sl. 5), ki ga je v primeru takega izvora predvidel Alvarez Rico, in obstaja razvoj podkev, ki ga je zanikal (glej zgoraj). Prve podkve imajo gladek rob, nimajo pa še ozobcev in žleba za žeblje. Podkve z gladkim robom in take brez žleba za žeblje so se obdržale do danes. Podkve brez ozobcev so pogoste še v prvi polovici 13. st., pozneje je njihov delež majhen.





Sl. 15: Sestavine podkev splošno. 1 – brez ozobcev, 2 – gladek rob, 3 – brez žleba, 4 – valovit rob, 5 – ozobci, 6 – žleb za žeblice. Svetli trak je lokalno pojavljanje, temni trak je splošno pojavljanje.

Fig. 15: Components of horseshoes. 1 – without calkins, 2 – smooth edge, 3 – without fullering, 4 – wavy edge, 5 – calkins, 6 – fullering. The light part marks the local and the dark part the general distribution.

J. Clark, ki je podkve tudi meril in tehtal, je ugotovil, da so mlajše v povprečju večje in težje od starejših (Clark 2004, 97–100), kar bi lahko bilo povezano s splošnim povečanjem velikosti in teže živali v srednjem veku (prim. Steuer 2000, 194). Ker pa ves čas obstajajo večji in manjši kopitarji, je brez velikoserijske statistike zelo tvegano datirati podkve z njihovo velikostjo.

Vsekakor obstaja vprašanje, zakaj so podkve z gladkim robom, brez ozobcev in brez žleba za žeblice ostale ves čas v uporabi. Morda njihovo prednost lahko vidimo v nekoliko manjši količini surovine ter v lažji in zato hitrejši izdelavi. Oboje bi v razmerah prostega trga vodilo k nižji ceni in zato k sprejemljivosti za kupce.

Poznoantičen pojav podkev in njihova razširjenost na ozemlju rimskega in nato bizantinskega cesarstva bi bila pojasnilo slovanskemu srečanju in poimenovanju tega predmeta (glej zgoraj). Najdba z blejske Pristave potrjuje, da zgodnje podkve iz baskovske Aldaiete niso osamljen primer. V prihodnosti lahko pričakujemo še več takih podkev.

Medtem je bilo v razpravo vključeno tudi opozorilo na navedbe o železu in konjih v Koranu,

ki jih je mogoče razumeti tako, da naj bi Arabci poznali podkve že v 7. st. (Lingens 2007, 15). Navedbe, podobo tedanjih arabskih podkev, ali so bile prevzete iz Bizanca, bo treba še raziskati.

Nova okolnost v razpravi o starosti podkev je legendarni dogodek iz življenja zavetnika zlatarjev in kovačev – sv. Eligija iz Noyona (Francija), ki govori o podkovanju nemirnega konja (Busuladžić 2005, 253). Ker gre za historično osebnost (rojen nekaj let pred letom 590, umrl leta 660), za poklicnega zlatarja, ki je deloval tudi na merovinškem kraljevem dvoru (Schäferdiek 1986), bi legenda lahko dokazovala uporabo podkev v času njegovega življenja. Žal njegov življenjepis (*Vita Eligii episcopi Noviomagensis* v: Krusch 1902, 634–742), ki je nastal nedolgo po njegovi smrti, sicer omenja nemirnega konja (lib. II. 47), vendar ne njegovega podkovanja. Legendo o podkovanju je mogoče zaslediti šele v poznosrednjeveški zbirki svetniških legend *Legenda Aurea* in zato nima pričevalnega pomena za starejši čas.

Kot novost so sledile podkve z valovitim robom, ki pa so bile izrazito “kratkotrajen” pojav.

Uvedli so jih konec 10. st. in jih v prvi polovici 13. st. ponekod že povsem opustili, drugod so jih v manjšem številu uporabljali še do prve polovice 15. stoletja. V čem je bila njihova prednost, da so jih sploh uvedli, in v čem je bila njihova slabost, da so jih opustili, bo treba še raziskati.

Valovite robove so uvedli zanesljivo pred ozobci, ki so se uveljavili najkasneje sredi 11. st. in pri odzvoju živalim omogočili boljši oprijem podlage. Podoba, ki jo je dala Drackova zbirka (sl. 4: 5), da so ozobce uporabljali že v 10. st., je zgolj posledica zelo ohlapnega datiranja njegovih primerkov. Niti londonske podkve z ozobci niti drugi natančneje datirani primerki ozobcev niso iz 10. stoletja.

Nasprotno Drackova zbirka ne kaže zgodnjega pojava žleba za želblje, ki so jih začeli izdelovati najkasneje konec 12. stoletja. Ker Drackova zbirka temelji na švicarskih gradovih, bi to lahko pomenilo, da so se tam žlebovi za želblje pojavili kasneje.

Posamezne nove sestavine podkve se torej niso pojavile povsod hkrati in stare lastnosti niso povsod izginile sočasno. To pomeni, da bi bile potrebne regionalne kronologije podkev, ki bi lahko zanesljiveje pokazale lokalne spremembe v času in verjetno zaznale tudi spreminjanje lastnosti, ki jih v tej grobi analizi ni bilo mogoče (npr. oblike ozobcev).

In za konec še **nekaj pojasnil kritičnemu bralcu**, ki je medtem opazil, da zagovorniki poznega

pojava podkev ne priznavajo zgodnejših najdbenih kontekstov, da zagovorniki zgodnjega pojava podkev priznavajo vse kontekste in da jaz nekako vmesno priznavam najdbene kontekste od 5. st. naprej, starejših pa prav tako ne. Vsi pa dokazujemo kronologijo z najdbenimi konteksti in njihovo (ne) zanesljivostjo. V čem je potem moj pristop boljši?

Ko odmislimo vse utemeljitve, povzete zgoraj, se znajdemo na čistini z miselnim trikotnikom videti – vedeti – verjeti. Kar vidimo, vemo, kar vemo, verjamemo, kar verjamemo, vidimo – in zaprti dokazni krog je sklenjen. Izstop iz njega je izjemno težaven, ker ga ovira kognitivna disonanca, čeprav bi bil nujen takoj, ko se pojavi prva informacija, ki se v ustvarjeno interpretativno sliko ne vklaplja. Samo če se zavedamo, da naša lastna kognitivna disonanca vkaluplja naše razmišljanje, imamo "športno" možnost, da jo potisnemo v kot in izstopimo iz sklenjenega dokaznega kroga.

Vendar pri tem ne gre za znano strategijo načrtnega dvoma, ki se hitro izrodi v razvrednotenje vsega. Kajti če ne verjamemo nobeni informaciji, ne moremo zgraditi nobene podobe preteklosti. Zaplet je torej v tem, da najprej moramo verjeti, da sploh pridemo do nekega spoznanja, in da moramo nato v to isto nehati verjeti, da bomo v nadaljevanju lahko prišli do novega spoznanja. Torej je potreben miselni salto mortale. Jaz vem, da je salto mortale nujen, zgornja raziskava je narejena v tej zavesti.

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## The charm of medieval horseshoes. A discussion of their chronology, classification and origin

*Translation*

### GENERAL REMARKS

For modern riders, the horseshoe, i.e. a piece of metal nailed to the hoof of an animal (*Fig. 1*), represents a necessary evil; it protects the animal's hooves, but at the same time damages the animal and is therefore avoided if possible. The need for shoeing depends on the animal's weight, its work load and the roughness or hardness of the ground. A heavy animal and a hard stone-covered surface all dictate the use of horseshoes, a heavy-duty animal traction even additional calkins (cf. Clark 2004, 75–78; Mechelhoff 2013). We can presume that the horseshoe was developed where and when the need arose, i.e. where horses and other animals (donkeys, hinnies, mules and oxen) were frequently used as work force on hard surfaces.

Horseshoes and horseshoe nails are consumables. A horse needs new shoes every 4–6 weeks. If the old shoe is not excessively worn, it can be repaired and reused. A horseshoe was rarely repaired more than once, as indicated by the ratio between the number of horseshoes and the number of horseshoe nails purchased, which is approximately 1 : 10. In connection with that, we have to take into account that the number of nails used to fasten a horseshoe may not have corresponded with the number of available nail holes (Steuer 2000, 194; Clark 2004, 83). This suggests that a horseshoe was in use for a very short period of time. Their shape is strictly functional and did not change much through time.

It was once thought that horseshoes were used from the Late La Tène period onwards, but a critical revision of the finds showed that this belief was based either on unreliable finds contexts or on secondary stratigraphic relationships. Horseshoes are mentioned in literary sources from the 9<sup>th</sup> century onwards, which has until recently been corroborated by reliable archaeological finds. What remains unexplained is where was the horseshoe invented, how it spread across Europe and how were animal hooves protected from the 4<sup>th</sup>, when the use of iron hipposandals ceased, until the 9<sup>th</sup>

century, when the first reliably dated horseshoes appeared (cf. Steuer 2000 with history of research; also Lingens 2007, 8–17; for Britain see Clark 2004, 78–81). Such a late date for the appearance of horseshoes is not, however, convincing to all. Mauricio Gabriel Álvarez Rico, for example, believes that the question has not yet been resolved, even after discussing the matter for more than a century. He allows for the possibility of horseshoes having an earlier origin and concludes that reliable archaeological finds will eventually provide decisive evidence. He does not observe a formal development in horseshoes, while gradual development from hipposandals does not seem possible without intermediary phases, which have not yet been identified (Álvarez Rico 2003, 166–170). In light of this, we should take a look at what new finds tell us on the subject, but also attempt to assess how our ability or willingness to see influences our interpretations.

### Chronology of horseshoes and cognitive dissonance

Psychological theory on cognitive dissonance suggests that people have difficulties in shifting from one perception of reality to another. If a person holds a very firm opinion and is later confronted with facts that contradict it, he or she is in numerous cases likely to insist on the old opinion rather than accepting the new one; accepting new facts can prove too difficult and even challenges the previously held self-perception. The research into horseshoe chronology is an excellent example of how cognitive dissonance influences the interpretation of evidence and consequently the proposed chronology.

It was initially believed that horseshoes appeared from the La Tène period onwards. But this was soon called into question, as it would mean that the horseshoe saw no change in its shape over more than a thousand years (cf. Clark 2004, 79). In Britain, serious doubts about the reliability of

the archaeological contexts and consequently the chronology were raised already in 1941 by Ward Perkins (Clark 2004, 81). On the continent, the same was done by Walter Drack, who attempted to establish a reliable chronological starting point by basing his research on finds from clear stratigraphic contexts and dates recovered from Swiss castles. The latter meant, however, that none of his horseshoes predated the 10<sup>th</sup> century (Drack 1990). In spite of that, Drack's publication brought a decisive turn towards the second phase of research into horseshoe chronology – early dating became outdated and all the early dates critically reinterpreted.

It is a challenge to determine when a horseshoe was lost or discarded, ending up on a road surface in continuous use for over a millennium. If we add to that the fact that a stratigraphic unit may contain objects not dating to the time of its deposition, but either earlier (*residual*) or later (*intrusive*) (cf. Clark 2004, 78), we can find ourselves on very thin ice of subjectively judging what is early, what is late, what is stratigraphically reliable and what is not. In other words, even if we do base our conclusions on stratigraphy, every object can be made either early or late by simply crying residual or intrusive finds.

In view of that, the excavations of the cemetery at Aldaieta (Basque Country) provides important information. A large number of horseshoes with a smooth edge and without either calkins or fullerings was found between graves (Fig. 2), one even in Grave B17 (Azkarate Garai-Olaun 1999, 98, 183–185, 499). Horst Wolfgang Böhme interpreted the site as the burial ground of soldiers who died on a Frankish battlefield in the second third of the 6<sup>th</sup> century. He also made an appeal to reconsider the origin and chronology of horseshoes (Böhme 2002, 145–150). The appeal did not go unnoticed. Simone Martini, who otherwise still insists on Drack's division of medieval horseshoes into two chronological groups, added an earlier, Early Middle Age group (Martini 2010, 78). Concurrently, there existed other chronologies, which the horseshoe discussion in the last 50 years has unfortunately avoided (Busuladžić 2005 based on Vikić, Walter 1955).

Agustín Azkarate Garai-Olaun, who investigated at Aldaieta, suggested a different date and nature of the cemetery. Using anthropological data on the age, sex and family connections as revealed by DNA analyses, but also a chronological analysis of the grave goods, he showed that burial took place there from the mid-6<sup>th</sup> to at least the second half of the 7<sup>th</sup> century, though he did not date the

grave with the horseshoe more precisely (Azkarate Garai-Olaun 2004; 2005–2006). The horseshoe in question could have come into the grave as part of the fill, which could mean that it is not later than the grave, but could be earlier. This proves that horseshoes were in use long before the 9<sup>th</sup> century, in the period seemingly 'devoid' of horseshoes, with the void merely a consequence of an interpretative doctrine according to which there were no earlier horseshoes. The discussion below will attempt to show how a more open-minded view can not only fill the void, but also explain the appearance of the horseshoe and propose a reasonable typochronology.

## CLASSIFICATION AND CHRONOLOGY

As usual for archaeological finds, the classification of horseshoes is also based on their form, with the implicit assumption that the form reflects a chronological sequence. There is the temptation to classify horseshoes on the basis of size, shape of the toe and branches, number and distribution of nail holes and particularly the various shapes of calkins. Rudolf Krajíc, based on a detailed classification proposed by Józef Kazłmierczyk, initially found 31 variants, though he did not exploit all the possibilities. He observed, however, that at least a third of the horseshoes could not be classified due to their poor state of preservation, while there were also numerous horseshoes with one part pointing to one variant and the other to another variant (Krajíc 2003, 102). He thus concluded his classification with 18 formal types, 15 of which he used in his chronology, noting that they were mostly contemporaneous in use (with an overview of earlier classifications Krajíc 2003, 102–105). Piotr Świątkiewicz encountered similar problems in attempting to classify the horseshoes from Gdańsk (Poland) using Kazłmierczyk's classification. He found that the various states of preservation and a great measure of individuality in horseshoes render a detailed classification very difficult, with certain formal characteristics possibly interpreted in different ways (cf. Świątkiewicz 2012, 34–36). This shows that a classification of the horseshoes, which only purpose is to make a detailed shape description, does not bring the desired results.

Two other classifications and chronologies were proposed that span the whole presumed period of use of medieval horseshoes and include numerous well-preserved horseshoes, their detailed



catalogue and dates of individual examples. They will be compared below, with the juxtaposition highlighting their common points and their differences. One is the already mentioned study by Drack that spans from the 10<sup>th</sup> to the 16<sup>th</sup>/17<sup>th</sup> century (Drack 1990) and the other an analysis of approximately 360 medieval horseshoes from London performed by John Clark (Clark 2004). The first is based on dated layers from Swiss castles and the other predominantly on the chronological phases of the London pottery associated with the horseshoes and roughly spanning the time from 900 to 1450. Of the latter horseshoes, only three date between 900 and 1050 (Clark 2004, 91).

**Drack** used the shape of the edge to divide horseshoes into two groups. The early group comprises horseshoes with a wavy edge dated from the 10<sup>th</sup> to the 13<sup>th</sup>/14<sup>th</sup> century, while the late group consists of horseshoes with a smooth edge and therefore crescent shaped branches (*Mondsichelruten*) dating from the 13<sup>th</sup>/14<sup>th</sup> to the 16<sup>th</sup>/17<sup>th</sup> century (Drack 1990, 207). This was in keeping with the implicit assumption that different formal types signify different chronological layers, but is contradicted by his own catalogue of the finds: the horseshoe with a smooth edge from Scheidegg (Drack 1990, 207, 210, Abb. 12: 15) is dated to the 13<sup>th</sup> century, while the horseshoes of the same shape from Habsburg (Drack 1990, 207, 210 Abb. 12: 5–7) are described as having a wavy edge (the edge on at least the horseshoe on Abb. 12: 7 is certainly smooth) and dated to the 11<sup>th</sup>/12<sup>th</sup> century. Furthermore, the horseshoes with a smooth edge from Ensérune (France) and Aguilar de Anguita (Spain) are dated to the 10<sup>th</sup>–12<sup>th</sup> centuries (Drack 1990, 214, Abb. 14: 8, 10–15). This implies that horseshoes with a smooth edge appear throughout the period under observation, that there is no basis for maintaining two chronologically distinct groups of horseshoes and that Drack's division is erroneous.

**Clark** divided the horseshoes from London into four formal types on the basis of the following criteria: shape of the edge, shape of the nail holes and shape of the counter-sinking for the nail head. Type 1 has three nail holes to each branch that are round and have either a rectangular or an oval counter-sinking for the nail head, which may slightly distort the outer edge of the shoe. In the latter case, the shoe may well approach Type 2A with a wavy edge. The associated nails are of T-shape, with a flat head, for which Clark sees the possibility that in some, if not all, cases these represent much worn examples of nails of

the so-called fiddle-key form also found with the horseshoes of Type 1. Shallow calkins occur, but are rare (Clark 2004, 85–86, Fig. 80). Horseshoes of Type 2 have narrow but thick toe with a wavy edge (Fig. 3). The nail holes are punched either from the bearing or the ground surface, three on each branch. Clark distinguishes between Type 2A, with round nail holes, and Type 2B, with rectangular and neater nail holes. Both subtypes have deep countersunk slots, with square or rounded ends. Surviving nails are of the so-called fiddle-key form, but also trapezoid. The heads are often so worn that they appear T-shaped. Of all the Type 2 shoes, 91% have variously shaped calkins on one or both branches (Clark 2004, 86, Figs. 81–82). The question here is whether Clark's trapezoid nail heads are not, in fact, worn pyramidal nail heads.

Type 3 consists of horseshoes with rectangular nail holes and narrow rectangular countersunk slots, with sometimes quite broad margins between the holes and the edge that is smooth. The shoes usually bear four holes on each branch. If the number of the nail holes on both branches differs, more are to be found on the outer branch. The associated nails are of a fiddle-key form, some heads are also rectangular. There is 78% of horseshoes with variously shaped calkins on one or both branches (Clark 2004, 86–88). Type 4 differs in the shape of the nail holes and of the nails. Some holes are without countersunk slots, they are either square or rectangular and taper towards the ground side. It appears that rectangular holes are generally later than the square ones, largely dating after 1350. There are three or four holes in each branch. The associated nails have a square or rectangular head that is thicker than the shank. The calkins of various shapes are less common, but still present on more than 50% of the shoes. The horseshoes of this type include examples with nail holes spaced more or less regularly around the toe area (Clark 2004, 88–91, Figs. 86–89).

Roughly half of the horseshoes included into his publication could be dated on the basis of their archaeological context. Clark thus determined the period of their use and compared them with other finds across Britain. In his interpretation, he noted the possibility of storing worn-out shoes for reuse. He summarized his findings in a chart, which shows that Type 1 horseshoes were in use roughly from 900 to 1150, Type 2A from 1050 to 1350, Type 2B from 1150 to 1350, Type 3 from 1200 to 1400 and Type 4 from 1270 at least to the 17<sup>th</sup> century (Clark 2004, 91–97, Figs. 74–75).

An increased number of criteria produced more types, while a fairly large number of shoes within a type yielded well dated groups that chronologically overlap in a considerable measure. Such a result confirms the observation that the two groups determined by Drack on the continent overlap in time. We should certainly agree with Clark that horseshoe nails are inextricably tied with the horseshoe and its functionality. However, we should also be aware of the fact that the shape of a used nail undoubtedly differs from that of a new one, but also that differentiating between the shapes of nail holes on poorly preserved and often heavily worn pieces depends in too great a measure on the personal judgement on the part of the observer. A more careful examination thus shows that Clark's classification is also decisively influenced by his wish to determine as great a number of formal types as possible. Type 4, for example, differs from Type 3 primarily in the absence of countersunk slots in the former. A careful observation of the horseshoes of this group, however, shows that most bear clearly visible slots (Clark 2004, 86–89). The question is then, which are the features that one should observe?

**A different view.** It is reasonable to base the classification on the features that are most readily identifiable: shape of the edge, presence or absence of calkins, presence or absence of fullerings. This makes up a group of simple criteria: smooth edge, wavy edge, without calkins, with calkins (with a feathered heel), without fullering, with fullering. It is also clear that each of the criteria should be observed independently, rather than attempt to determine a horseshoe as a whole without previously understanding how and why a feature appears.

Both catalogues allow us to track the appearance of the features or parameters established above (Fig. 4). We can track the appearance and disappearance of individual features, which consequently allows us to build a chronology of the horseshoe. The pieces from Drack's catalogue are predominantly dated with a two-hundred-year precision and those from Clark's catalogue within the span of 30–50 years. In spite of that, they reveal a comparable picture between the continent and Britain. There are minor differences, which may in part be the consequence of the state of research. One of these differences is a seemingly later beginning of the use of calkins in Britain, as there were only three horseshoes from London predating 1050 available to Clark. London certainly revealed an abundance

of later horseshoes to make Clark's observation, on the clips and fullerings appearing in Britain only in the modern period, fairly accurate (Clark 2004, 82). This observation also signifies that fullerings were being made on the continent at least a few centuries before Britain, while the clip represents a modern-period invention on the continent as well.

Clark's part of the chart proposes dates with the precision of a century, which gives the impression that the horseshoes with the wavy edge and those with a smooth edge appeared contemporaneously. More precise dates of the horseshoes, however, offer a different picture. Only one shoe with a wavy edge can be reliably dated to the 10<sup>th</sup> century, while they predominate in the 11<sup>th</sup> and 12<sup>th</sup> centuries (Clark 2004, 95, Fig. 74). Prior to this, there is a prevalence of the horseshoes with a smooth edge (Clark's Type 1: Clark 2004, Fig. 75). One example of Clark's Type 1 is dated to the end of the 9<sup>th</sup> century at the latest. If Clark had not implicitly presumed that early horseshoes are only characterized by round nail holes, he would have admitted to an even earlier shoe from Wicken Bonhunt in Essex, which was found in a reliably stratified context from the 8<sup>th</sup>–9<sup>th</sup> century; the horseshoe having a rectangular hole, he deemed it untypical and dated it to a later time (Clark 2004, 94). This, of course, means that he interpreted it as an intrusive find. The distinguishing feature between the horseshoes of Type 1 and those of Types 3 and 4 is round holes. If he had accepted the early date of the horseshoe from Wicken Bonhunt, he would endanger the typochronological rationality of the round-nail-hole criterion and consequently the division into Types 1, 3 and 4. It is again an issue of cognitive dissonance, the result of which is the conclusion that if an object does not fit into the typology, there has to be something wrong with the object. Even without the Wicken Bonhunt horseshoe, however, it is clear that horseshoes with a smooth edge appear earlier than those with a wavy edge and that the latter appear only in the 10<sup>th</sup> century.

A chronologically comparable picture is offered by the calkins, which were made in various ways (e.g. Clark 2004, Fig. 59). Various types of calkins probably also include a feathered heel (Fig. 1), which is tentatively shown in the chart on Fig. 4: 6. The exact chronological value of individual calkin variants is still to be determined, with the aid of a sufficient number of reliably dated horseshoes. Clark's Type 1 is largely without calkins, the only horseshoe from London of this type with calkins is dated to the second half of the 11<sup>th</sup> century; most

of the horseshoes with a wavy edge bear calkins (Clark 2004, 85–86). This speaks in favour of calkins not yet being introduced in Britain in the 10<sup>th</sup> century. In comparison with the continent, this would suggest two possible scenarios. The first would be that calkins appear on the continent earlier than in Britain, but less likely prior to the 10<sup>th</sup> century. The second scenario is that the broad dates for the continental horseshoes only seemingly include the 10<sup>th</sup> century and that precise dates would only point to the 11<sup>th</sup> century.

The juxtaposition of Drack's and Clark's collections shows that the horseshoes with a smooth edge are earlier than those with a wavy edge, but that after the appearance of the latter both forms coexist, the wavy edge being prevalent in the 11<sup>th</sup> and 12<sup>th</sup> centuries and ceases to be made until the 14<sup>th</sup> century. Calkins are also a feature of a later date, used alongside horseshoes without calkins, in Britain until the modern period, while Drack's continental horseshoes include no pieces with calkins after the 12<sup>th</sup> century. The British horseshoes without calkins seem to be in a minority from the 11<sup>th</sup> century onwards, for the continental ones this is probable. As a novelty on the continent, fullerings also appear in the Middle Ages, while the clip is a modern-period invention.

### The origin of the horseshoe

It seems incredible for an object so functionally perfected as the horseshoe to appear as such without forerunners. The latter would most logically be sought in the Roman iron hipposandals (*soleae ferreae*), which were tied to the hoof. There exists, however, a gap of several centuries between the end of the use of such sandals in the 4<sup>th</sup> century and the presumed medieval introduction of horseshoes in the 9<sup>th</sup> century (cf. Steuer 2000, 195–196). Here we stumble upon contradicting argumentation of the doctrine of 'late' horseshoes.

The absence of hipposandals from archaeological layers from the 5<sup>th</sup> century can be explained in two ways. The first is that the 5<sup>th</sup> century witnessed changes in the economy and communications that led to the disuse of hard road surfaces, as well as draught and pack animals. The second is that a better replacement was invented. The contradiction lies in the fact that the 'late' datation of horseshoes, found on old road surfaces which were used over a millennium, have been proven with a continuous use of this roads. This means, there were the unchanged

traffic conditions which would then require the continued use of hipposandals, but this use did not happen. Therefore, if the traffic conditions have not changed and a need for hoof-protection was still there, as well as if the hipposandals were really not in use from the 5<sup>th</sup> century on, it leaves us with the conclusion that the doctrine on the 'late' horseshoes must be false.

To look at the matter more closely, we should first turn to the hipposandals, which were used for draught and pack animals, but unsuitable for riding (Lawson 1978, 133; Pflaum 2007, 326; Martini 2010, 74). The hipposandal classification that is still valid was proposed by Xavier Aubert, who distinguished between three types according to the manner of fastening (Types 1, 2 and 3), to which W. H. Manning later added Types 4 and 5 (Manning 1985, 63–66). Annabel K. Lawson dates the sandals of the first three types from the second half of the 1<sup>st</sup> to the 4<sup>th</sup> century, presuming that Type 1 is the earliest (Lawson 1978, 136). Based on the pieces from London, Manning believes that Type 2 was in use prior to the 3<sup>rd</sup> century (Manning 1985, 65). All this corresponds with the observations by Dragan Božič and Veronika Pflaum on hoard finds from the 3<sup>rd</sup> century only including hipposandals of Type 3 and hence concluding that Type 1 must be earlier (Pflaum 2007, 325–326). The sandals of the latter often have a grooved ground surface for better traction. Through use, the sandals of this type were improved with the addition of a hole in the sole, which reduced the amount of iron needed in production. Such hipposandals were used in the 4<sup>th</sup> or 5<sup>th</sup> century (Manning 1985, 63–65). From the point of view of the horseshoes, a particularly important piece from London shows another addition for better traction, namely a horseshoe-shaped iron strip that replaced the grooves, welded on the underside of the sole (Manning 1985, 65). This tread is obviously the link (*Fig. 5*) between the hipposandal and the horseshoe.

**When the first blacksmith came upon the idea of nailing a curved piece of metal directly onto the hoof, rather than tying it as it had been done up to that point, the horseshoe was born.** Apart from better traction and hence possible use also for riding, the horseshoe also importantly reduced the amount of iron needed in production. It is not certain whether this occurred in Britain, but the possibility of it exists. What is certain is that the horseshoe gradually came to be used across the Roman Empire.

In light of this, the claim by Mortimer Wheeler of finding horseshoes from the late 4<sup>th</sup> or early 5<sup>th</sup> century at Maiden Castle (Britain) may not be false, as stated by Clark, who saw it as an intrusive find (Clark 2004, 80). Contrary to this, Clark did not comment the find of a horseshoe from Caister (Britain) that Charles Green found on the surface of a Late Roman road that fell into disuse and was finally covered by a grave from the Middle Anglo-Saxon period (Clark 2004, 79).

### The Slavic *\*podŕkova*

All Slavic languages have a word for the horseshoe that originates from the Common Slavic form of *\*podŕkova*, composed of *\*podŕ* (under) and *\*kovati* (to forge), meaning 'what is forged from below' (Snoj 1997, 459). The Proto-Slavic *\*kovati* (to forge) is a derivation from the Indo-European root *\*kaHu-*, *\*kawH-*, meaning to beat (Snoj 1997, 265). The Common Slavic form was accepted into the Slavic language in the 8<sup>th</sup>, possibly the 9<sup>th</sup> century at the latest (Marko Snoj, pers. comm.). The Slavic term thus originates in the manner in which the object was fastened, i.e. nailed to the hoof from the bottom side. This is an important piece of information for the history of the horseshoe in Europe. It tells us that the Slavs came to be familiar with the horseshoe in the time before the Slavic-speaking area became dialectally differentiated, that already at that time the horseshoes were objects nailed to horses' hooves and that they were not objects introduced to the Slavs by neighbours together with the name. Furthermore, the word was taken over from the Slavs by the Albanians and the Romanians (Snoj 1995). Even if the latter already had a word for the horseshoe, it was replaced by the Slavic one, either because the Slavic language was more prestigious or because it marked a technical invention, possibly even both (Marko Snoj, pers. comm.). Also important is that horseshoes came to be used by West Slavs from the 10<sup>th</sup> century onwards (Kazĭmierczyk 1978, 147; Steuer 2000, 195). This would suggest that the Slavs came across horseshoes when they settled the Balkans and the Alps in the 6<sup>th</sup> and 7<sup>th</sup> century or not long after that, whence the horseshoes gradually spread northwards among the Slavs; physical objects together with the name. Avars did not use horseshoes, which is logical because they used horses in a manner that did not require shoes, just as they could ride their horses without

using spurs. A similar, though later example of this was observed with the Hungarians and Tatars (cf. Slivka 1980, 260–261).

### SOME 'CONTROL FINDS' OF HORSESHOES ACROSS EUROPE

The scholars who advocate a late appearance of the horseshoe consider the finds from the hillfort at **Runden Berg near Urach** (Germany) among the earliest examples of the use of the horseshoe. The site yielded a large number of horseshoes, almost all with a smooth edge, without calkins and presumably dating to the Late Carolingian or Ottonian period, with habitation at the hillfort certainly ceasing in the first half of the 11<sup>th</sup> century (Kind 2001).

The early medieval hillfort in the town **Sopot** (between Gdynia and Gdańsk, Poland) also revealed a horseshoe. A settlement existed there from the 8<sup>th</sup> century onwards, while the hillfort was in use from the mid-9<sup>th</sup> to the end of the 10<sup>th</sup> century. The poorly surviving horseshoe has a smooth edge and does not appear to have calkins (Szymańska-Bukowska 2005, Ryc. 10. c). It was found in the hillfort's interior and does not postdate the 10<sup>th</sup> century.

The finds from Lusatian castle in **Meißen/Mißen** (eastern Germany) illustrate the development of the horseshoe in the period from the 10<sup>th</sup> century to around 1200. In the 10<sup>th</sup>/11<sup>th</sup> century, the horseshoes comprised those with a smooth edge and without calkins (Schmid-Hecklau 2003, Abb. 2: 1), but also those with a wavy edge and without calkins (Schmid-Hecklau 2003, Abb. 2: 4). In the 11<sup>th</sup>/12<sup>th</sup> century, calkins, sometimes as feathered heels, begin to appear alongside both the smooth and the wavy edge (Schmid-Hecklau 2003, Abb. 2: 6,7; Abb. 3: 1,4). A horseshoe with a smooth edge and very wide branches from around 1200 also has calkins on both branches and at the toe. If the drawing is correct, the horseshoe also has a fullering (Schmid-Hecklau 2003, Abb. 3: 6), which would predate the fullerings in Drack's catalogue by a century.

The early 11<sup>th</sup>-century layers from the castle in **Raabs an der Thaya** (Austria) yielded a number of horseshoes, only 7 of which have a smooth edge and others a wavy one, a single horseshoe bears calkins, others are without (Felgenhauer-Schmiedt 2006, 30–31, 34, Taf. 12).

Twelve horseshoes from habitation layers at **Gdańsk** (Poland) point to a contemporaneous use of horseshoes with and those without calkins, but



also those with a smooth and with a wavy edge at the end of the 12<sup>th</sup> and beginning of the 13<sup>th</sup> century. The horseshoe without calkins dates more precisely to 1200–1220. Two horseshoes with a wavy edge stand apart, dating to 1320–1410 and even after 1410 (Świątkiewicz 2012, Tab. 7, Tabl. XIII, XIV), which is more than a century later in comparison with the horseshoes published by either Drack or Clark (Fig. 4: 1). It is also noteworthy that no horseshoe was recovered from earlier habitation layers. Świątkiewicz treats the horseshoes jointly with military equipment. This is correct to a certain extent, because horses used in battle were also fitted with horseshoes, though we should not forget the fact that other horses also wore horseshoes and the horseshoe itself is not yet evidence of cavalry.

The Lusatian Ortenburg Castle in **Bautzen/Budyšin** (eastern Germany) also revealed several horseshoes, which show that examples with a wavy edge and calkins were used in the 13<sup>th</sup> century, but also horseshoes without calkins. The early use of a fullering is confirmed by a horseshoe from the 13<sup>th</sup> century, which is without calkins and with a smooth edge (Meffert 2002, 154, Abb. 89: 3–7; 90).

The town of **Sezimovo Ústí** (Czech Republic), abandoned during the Hussitic Wars, thus far revealed over 18000 iron objects, 335 of which are horseshoes dated between the second half of the 13<sup>th</sup> century and 1420. All horseshoes bear calkins and a single one a wavy edge, the latter alas without find data. Throughout the period there are horseshoes with and those without fullerings. Of the former, a single can reliably be dated to the 13<sup>th</sup> century (Krajč 2003, 100–109). This would suggest that the 13<sup>th</sup> century should be considered as the time when wavy edges were abandoned and fullerings introduced.

The habitation layers of the site at **Vokovice in Prague** (Czech Republic) that span from the beginning of the 12<sup>th</sup> to the second half of the 19<sup>th</sup> century revealed 17 horseshoes (Chmielowiec, Kašpar, Zdaniewicz 2013, 301–304, Obr. 13, 14). None of them bears a wavy edge, although we could expect it for the 12<sup>th</sup> and 13<sup>th</sup> centuries. Fullerings appear already on horseshoes from the 12<sup>th</sup> century, although horseshoes without them are concurrently used until the end, i.e. to the second half of the 19<sup>th</sup> century. A similar picture can be observed for the calkins; horseshoes with and those without calkins are in contemporaneous use from the 16<sup>th</sup> to the second half of the 19<sup>th</sup> century, while the picture for earlier centuries is

not clear. A single horseshoe from the 19<sup>th</sup> century has a clip, all earlier ones are without it.

Of the horseshoes found on the territory of the present-day **Slovenia**, nine have been selected for this article (Figs. 6–14). They correspond with the above-discussed outline of horseshoe development (Fig. 15). They also indicate the possibilities of studying their symbolic meaning and of studying the traffic and communication lines.

For the topic in question, the most important Slovenian horseshoe is the one with a smooth edge from **Pristava in Bled**, because it ranks among the earliest horseshoes in Europe (Fig. 6). It was found in 1949 while excavating an early medieval cemetery and a road that led between the graves. More precisely, the horseshoe fragment was found in the area between Graves 240 and 243, at a depth greater than the former and shallower than the latter grave located further to the south. Grave 240 was most probably dug into the edge of the road that crossed the cemetery (Pleterski 2008, 80–93, Sl. 3.53; 3.54; 3.64; 3.65; T. 39: 8), which caused the road surface to narrow down. Being unlikely that people walked and rode across graves, this leads us to infer that the horseshoe came into the ground before the road surface narrowed and, consequently, that the fragment is earlier than Grave 240.

It is not likely for the horseshoe to be an intrusive find. Firstly, it is a small, light find of a thin horseshoe that could not have sunk into the lower-lying and earlier layer due to its weight. Secondly, the fragment was found under a layer of alluvium, formed during a cataclysmic weather event that damaged the road surface and covered the cemetery (Pleterski 2008, 38–40, 90–93). This event may stratigraphically be attributed to the second half of the 7<sup>th</sup> century (Pleterski 2008, 161). It can very probably be brought into relation with the fierce storms that ravaged Italy for several days after 17 June 676 (Pleterski 2010, 149–150), the devastating consequences of which may also have been felt at Pristava (Žagar 2010).

As for grave goods, those in Grave 240 suggest that it ranks among the later graves of the cemetery's early phase, though not the latest (Knific 1983, 22–26). Its relative 'lateness' corresponds with the fact that it was – apparently because of the lack of available burial space – most probably dug into the side of the road, which occurred very probably already in the first half of the 7<sup>th</sup> century. This means that the horseshoe fragment cannot be later than the first half of the 7<sup>th</sup> century, possibly even considerably earlier.



## SUMMARY AND DISCUSSION

We have indicated above that horseshoes developed in the 5<sup>th</sup> century as the next step in the evolution of the hipposandals (Fig. 15). There exists a link between the hipposandal and the horseshoe (Fig. 5), which Alvarez Rico predicted in the case of such a scenario, but there is also a formal development of horseshoes that he refuted (see above). The first horseshoes have a smooth edge and are without calkins and fullerings. The horseshoes with a smooth edge and those without the fullerings are still in use today. Horseshoes without calkins were common up to the first half of the 13<sup>th</sup> century, later their share decreased substantially.

Clark, who measured and weighed horseshoes, observed that later ones are on average larger and heavier (Clark 2004, 97–100). This could be connected with the general increase in the size and weight of animals during the Middle Ages (cf. Steuer 2000, 194). However, there have always been large as well as small hoofed animals and it would be very questionable to attempt to date horseshoes on the basis of their size without a large sample for a statistical analysis.

The question that certainly remains is why have the horseshoes with a smooth edge, without calkins and without fullerings remained in use throughout the horseshoe history. Their advantage might be seen in the slightly smaller amount of raw material needed and in a simpler and thus quicker production. On the free market, the two factors would lead to a lower price and thus wider accessibility.

The appearance of horseshoes in Late Antiquity and their spread in the area of the Roman and then Byzantine Empires would explain how the Slavs came to know the object and give it a name (see above). The find from Pristava in Bled confirms that the early horseshoes from Aldaieta (Basque Country) are not an isolated example; more such finds may be expected in the future.

The discussion on the development of the horseshoe also includes passages in the Koran mentioning iron and horses, which may suggest that the Arabs were familiar with horseshoes already in the 7<sup>th</sup> century (Lingens 2007, 15). These passages, the shape of the 'Arabic' horseshoes, but also whether they were adopted from the Byzantine Empire remains to be studied in detail.

The value of an information on the age of the horseshoe, provided by a legend from the life of Saint Eligius of Noyon (France), is to be discussed. It states that he shod a reluctant horse

(Busuladžić 2005, 253). Eligius is patron saint of goldsmiths, blacksmiths (born a few years before 590, died in 660), he was a professional goldsmith, who rose in importance at the Merovingian court (Schäferdiek 1986), and the legend could indicate the use of horseshoes in the time of his life. Unfortunately, however, his biography (*Vita Eligii episcopi Noviomagensis* in: Krusch 1902, 634–742), written not long after his death, does mention a reluctant horse (lib. II. 47), but not its shoeing. The legend on the shoeing can first be found in *Legenda Aurea*, a Late Middle Age collection of hagiographies, which cannot be taken as reliable testimony of earlier times.

As for the formal development, horseshoes with a wavy edge were introduced at the end of the 10<sup>th</sup> century. It was in use for a rather short period of time, in certain regions not persisting beyond the first half of the 13<sup>th</sup> century and in others continuing to be used in smaller numbers until the first half of the 15<sup>th</sup> century. We are as yet unable to determine either the advantage that led to its appearance or the weakness that finally led to its disappearance.

The wavy edge was certainly introduced before the calkins, the latter appearing in the mid-11<sup>th</sup> century at the latest so as to enable better traction. The picture offered by Drack's catalogue (Fig. 4: 5), of calkins dating already to the 10<sup>th</sup> century, is merely a consequence of his broad dates of individual examples – none of the precisely dated pieces, either from London or elsewhere, can be attributed to the 10<sup>th</sup> century.

On the contrary, Drack's collection does not offer evidence for an early appearance of fullerings; these were first made at the end of the 12<sup>th</sup> century at the latest. His catalogue mainly being composed of the horseshoes from Swiss castles, this might indicate that fullerings in Switzerland appeared later.

Individual elements of the horseshoe did not appear or disappear contemporaneously across Europe. This proves the need for establishing regional chronologies, which would more reliably show local changes through time and could most probably also reveal the changes in individual elements that remain undetected in a general analysis (for example the shape of the calkins).

I conclude with a **few remarks for the critical reader**, who will have noticed that those who advocate a late appearance of the horseshoe do not

admit earlier contexts, that those who advocate an early appearance admit all contexts and that I accept the contexts dating from the 5<sup>th</sup> century onwards, but not earlier. We all, however, base our chronologies on archaeological contexts and their reliability or lack thereof. What, then, makes my approach better than others?

When we think away all the evidence mentioned above, we are left with the triangle see – know – believe. What we see, we know; what we know, we believe; what we believe, we see – and the circle of argumentation is closed. It is very difficult to exit from it, hindered by cognitive dissonance, in spite of the necessity of such a step with the first information that does not correspond with the interpretative picture. Only by being aware of the predetermining effect of cognitive dissonance on our thinking, do we have a fair chance of keeping it at bay and exit the closed circle of argumentation.

The strategy proposed here is not one of deliberate doubt, which can quickly degenerate into a general devaluation; without believing some of

the available data, it is not possible to reconstruct past events or developments. Here is the rub: we first need to believe a piece of information to be able to arrive at a finding, after which we have to stop believing the finding so as to arrive at a new and improved one. This requires a cognitive *salto mortale*. In the case of horseshoe history, I believe that such a *salto mortale* is necessary and the study has been written with this in mind.

*Translation: Andreja Maver*

Andrej Pleterski  
Znanstvenoraziskovalni center SAZU  
Inštitut za arheologijo  
Novi trg 2  
SI-1000 Ljubljana  
pleterski@zrc-sazu.si

